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# EDUCATION UP TO FIFTEEN YEARS

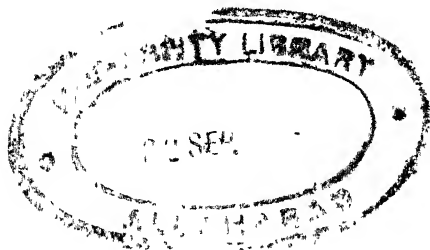
*(What is and what might be)*

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BY

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## Preface

MY earliest connection with the problem of the Central or Senior School dates back to 1906, when I was Director of Education for the County Borough of Walsall. In that year all the Council Schools and the great majority of Voluntary Schools were "decapitated," and their two thousand pupils in Standard IV and upwards were transferred to six Central Schools for the purpose of receiving advanced instruction.

Two of these schools were conducted under the Higher Elementary Regulations, in order to earn higher grants, and the other four were left, for experimental purposes, free from all cramping restrictions.

The "cut" was made on a "standard" classification, in order to ensure as far as possible a three-year life in both the Junior and in the Senior School; psychological camouflage was not then thought necessary to excuse the action. The standards were then largely based on the ages of the pupils, though attainment did to some extent enter into the question. Some older pupils remained in the Junior Schools in the lower standards and were not in the first year transferred to the Senior Schools. This was, certainly, not to their advantage, but it did make it somewhat easier to classify those who were transferred and to draw up curricula suitable to their requirements.

Provision was made for Gardening for both sexes, for instruction in Handicraft for boys and in Domestic subjects for girls, and Physical Instruction was given in the central halls by a trained instructor. The boys were sent "temporarily" to the Technical College for practical instruction in Science, until the Science Rooms could be erected on the school premises; this "temporary" arrangement persisted for sixteen years.

When in 1908 I went to Blackburn, in Lancashire, I found that the prevalence of the "half-time" system made

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it impossible to start a similar system in that town. It was useless to try to give advanced instruction to children, who at the age of twelve years would go to work in the weaving sheds half-time and would have to start work at six o'clock in the morning every alternate week, however distant their respective places of occupation were from their homes.

Selective Central Schools were the only ones possible in the circumstances, since there were but few pupils who would consent or be allowed by their parents to attend school full-time until the age of fourteen years or later. Two Selective Central Schools, one for boys and one for girls, were erected and opened in 1911. Later, a Selective Central School for boys and one for girls were opened in a Voluntary School building. The sexes were separated in order to make it easier to ascertain the best courses of instruction for each of the two sexes.

The schools were self-contained, in that their pupils received all their instruction on their own premises in Art, Science, and Physical Culture, and in Handicraft for boys and in Domestic subjects for girls. Later on, the Housewifery was transferred from the model flat on the girls' school premises and was given on the intensive plan in an occupied house a little distance from the school doors.

Owing to the necessity for increasing the supply of intending teachers, the schools were allowed to keep to the age of eighteen or nineteen years those who were willing to stay and to be prepared for the School Certificate Examination and for Matriculation; undoubtedly the kind of instruction required for these older pupils did colour the instruction given to the whole school, but it was difficult, at first, to avoid this.

After "half-time" had been abolished, steps were taken at once to develop Non-selective Schools, with fair results. The change could affect only a very small proportion of the schools, since the majority of them (four-fifths) were Voluntary or Non-provided Schools, and even if their managers had been willing to co-operate, their buildings

could not have been made suitable for the giving of satisfactory advanced instruction. The changes, therefore, had to be confined to the Council Schools, and the Voluntary Schools had to be left as they were.

In 1924, when I was appointed Director of Education for the City of Nottingham, I found it possible to make arrangements for the reorganisation of the whole of the Elementary Schools. In the first instance, a few of the schools, most suitable in structure, were converted into self-contained Selective Central Schools, and immediate steps were taken to build other schools and to adapt some of the older schools for the purposes of advanced instruction. The new schools were mainly on or near Municipal Housing Estates.

Finally, when there was sufficient Senior School accommodation for the twelve thousand senior pupils in the city's Elementary Schools, other than the R.C. Schools, which were very few in number, the selective character of the first formed Central Schools was dropped, and each of the thirty Senior Schools, fully equipped for giving advanced instruction on their own premises, became a District School, receiving from its contributory Junior Schools all the pupils of the prescribed age who did not join Secondary Schools. Arrangements have now been made to erect Senior Schools for the R.C. children under the new grants regulations. In the Senior Schools the sexes are taught in separate schools, except in the cases of two schools, which are "mixed," though even in these two schools the sexes are taught separately.

I have thus had over thirty-two years of practical experience of the development of Central and Senior Schools, and have had in that time the opportunity of watching the results of numerous experiments in curriculum and equipment. Approximately half my official time has been spent in the schools discussing educational questions with head and assistant teachers, and in watching with interest and profit the pupils at their work and their play.

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This book contains the conclusions I have drawn from that long and varied career in two County Boroughs, and in a large and ancient city, from my previous experience as Organiser of Technical Instruction in Warwickshire, from my teaching work as Staff Instructor in Science and Agriculture to the Devon County Council, from my University days at Cambridge, and from the Classical Education I received at school.

A. H. WHIPPLE.

*1st June, 1939.*

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JUNIOR CRAFT WORK—PRINTED FABRICS

## Introductory

AFTER September 1939, the conditions for the employment of juveniles between the ages of fourteen years and fifteen years will be altered greatly and for the better, that is, of course, if the bylaws drawn up under the Education Act, 1936, are strictly observed and enforced.

The bylaws will then prohibit the employment of fourteen-year-old juveniles in certain specified occupations, and will also severely limit the number of hours those juveniles may work during each day and each week. They will also specify the time before which work shall not begin and beyond which it shall not continue, and as a condition of employment attendance at classes for further education may be required. (A copy of the bylaws adopted by an important Local Education Authority is given at the end of this book, pages 204-208.)

Education authorities will have to be satisfied that the employment in each case is not likely to be intermittent and that it offers satisfactory prospects for the future.

One result hoped for from these new regulations is that most employers will cease to employ juveniles under the age of fifteen years, and that the consequent reduction in the demand for the labour of fourteen-year-old juveniles will have practically the same effect as would have been attained if the Education Act, 1936, had raised the age for compulsory attendance at school to fifteen years without any exemption for beneficial employment. Consequently, boys and girls, between the ages of fourteen and fifteen years, finding little or no demand for their paid services, may resign themselves with quiet and contented minds to remain at school full-time until the end of the terms in which their respective birthdays fall.

There may arise other and less fortunate circumstances; for instance, school attendance so induced may not be thankfully received, and there may be aroused in the

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pupils' minds a feeling of resentment against regulations which forbid employment with its pecuniary rewards. This may wear off in time, but, unfortunately, in a new educational system it is often the first year that counts. Education Committees may be affected by this mental unrest and may consequently turn a blind eye on infringements of the bylaws, and the rot once started will be difficult to stop.

There was a similar difficulty in the past when the law first laid down that a child could not leave school until the end of the term in which his fourteenth birthday fell. Education Committees adopted ingenious devices to get over this provision and to set free the child from school attendance at an earlier date. The difficulty was not resolved until the Children and Young Persons Act made it illegal to employ an Elementary School child before the end of the term in which his fourteenth birthday fell.

Another possible result of the conditions laid down in the bylaws may be the lowering of the wages of juveniles under the age of fifteen years proportionately to the reduction in the number of the hours of permitted employment. Time will show whether or not such a reduction of wages will occur in spite of the safeguards in the bylaws. If it does, then it is to be hoped that parents will decide that a year's extra education will in the long run pay better than the receipt of low wages.

The decision of the parents will no doubt be affected to some extent by the character of the education offered in that extra year. If it is really of an advanced character, and if it is clearly demonstrated that the facilities for instruction provided in the Senior Schools are suitable for their purpose and that the year can be spent to advantage, many parents will no doubt be ready and willing, as many have been in the past, to grasp the opportunity of fitting their children educationally for positions offering prospects satisfactory from every point of view. If the education offered does not fill the bill, then they may feel inclined "to take the cash in hand and leave the rest."

The task of equipping the schools for advanced instruction will not be an easy one. All schools are not yet reorganised, and in some districts where they have been nominally reorganised, the courses of instruction in the Senior Schools do not differ appreciably from those which prevailed before and which had not hitherto been accepted as a satisfactory preparation for life and all its problems.

In other cases the reorganised Senior Schools are being content to offer courses of study which are merely a copy of those followed in Secondary Schools, in spite of the fact that Secondary Schools are bound fast in the fetters of the School Certificate Examination and have little or no choice as to what they shall teach, whereas the Senior Schools have complete freedom to draw up their own courses of study.

The syllabuses of the School Certificate Examination have been drawn up by University Examining Boards who have had little first-hand knowledge of the needs of youth. The courses of study based on those syllabuses may be excellent as a preparation for a University life, but they can hardly be looked upon as completely satisfactory for those who must, for financial reasons, leave school at the earliest permitted moment and certainly before they reach the age of sixteen years, the minimum age for leaving the Secondary School.

If the extra year is to be spent to the full advantage, parents, pupils, and employers—employers are rightly placed last—must all be convinced that an extra year in school from the age of fourteen years will be well and satisfactorily spent, considered from every point of view.

Employers' Associations, which do not always represent the views of the majority of employers, pay lip service to the idea of a good general education as opposed to a vocational education or to one with a vocational bias, which is perhaps not quite the same thing.

Teachers' Associations also favour a non-vocational education. Parents, while agreeing generally with these

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Associations, have in their minds the thought that the extra year should bring some ultimate pecuniary advantage to those who are able to enjoy and profit by it. All pupils should profit by this extra year, whether they are brilliant, medium, or backward; in fact, it is officially recognised that the more backward the pupil from mental or physical causes, the longer should be the course of instruction.

There are, however, still in existence many who think that those who will be hewers of wood and drawers of water all their lives should be fobbed off with an education which should be the minimum possible in cost and duration. Such people will always exist and their opinion will always carry some weight, but fortunately not enough to sway appreciably the votes of those who represent the majority on the Education Committees.

Parents will expect the possibility, if not the probability, of some ultimate advantage, pecuniary or otherwise, from the sacrifice of a year's wages. They will require to be convinced that their sons and daughters will not start at a much lower wage at fifteen years of age than that which they would have received if they had started work a year earlier. Parents, after all, are but human. Many of them had little cause in their own youth to admire education in the abstract. The education they received was deadly dull, and they have, therefore, little reason to believe they would themselves have been any the better for a longer course of it.

People have not the special characteristic of the sundial. They do record in their minds, at any rate, days other than the pleasant and sunny ones. They are apt to retain in their memories some things they did not enjoy, including the boredom they felt when they were continually compelled to perform tasks which seemed to them to have no earthly use or application. These memories do not lead them to wish that their children now fourteen years of age should have a bigger dose of that kind of education than they themselves had had to swallow.

The persistence of this feeling may, possibly, be the cause of the boast of the successful business man: "I had no education to speak of and look at me!" What he is obvious; what he might have been if properly educated has to be left to the imagination. His self-satisfaction, unfortunately, sometimes leads him to oppose improvements in educational schemes which involve some extra expenditure from the rates and taxes.

Parents have not had much chance since their childhood, and possibly less desire, to visit schools in the ordinary day-school session and to judge how far things have changed since their time. Whether they have had the chance or not, they certainly have not visited the schools very often. Invitations to do so have not been widely broadcast, and when such visits have been made, they have been to special occasions, such as Open Days, Prize Distributions, and School Concerts, which do not give a real opportunity of judging the ordinary everyday work of the schools. On such occasions, too, the visitors are generally of one sex, the men seeming to delegate to their women-folk the seeing and hearing and retaining for themselves the privilege of criticising, without first-hand knowledge, education as at present conducted.

The vocal parent of the sterner sex is not yet entirely convinced that the extra year is worth while, even if the financial loss of a year's wages is left out of the account. If he could feel that his child would really enjoy the extra year and would gain advantage from it, he would be more willing to approve the extended stay at school. Unfortunately, he cannot be certain that his child will enjoy it, since there are still in existence and in authority many educationists who thoroughly approve of Mr. Dooley's principles of education and see that they are practised, namely: "It don't matter what you larn so long as you don't like larning it!" Many still think that uninteresting drudgery stimulates the child's powers of concentration and makes him more capable and more willing to tackle the dreary tasks he will have to meet in the com-

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mercial and industrial world. A spring compressed no matter how long will fly out as soon as the pressure is released, and dreary tasks compulsorily performed in school time may result in a determination to have no more of their like when free choice becomes possible.

On the other hand, education based on interesting and useful work has no deleterious effect on the pupil's mind and character. The mind, the hand, and the eye can be exercised and the character trained when useful work is being done. Concentration can be more easily fostered by a task, however difficult, which the pupil himself wishes to complete for his own purposes than by one which is merely an exercise in mental gymnastics and of no practical use to anyone.

Parents, probably, do not put as high a value on the cultural side of education as they should, but they do appreciate some of the advantages to be derived from it. They know that the schools, in drawing up their curricula, have to have in mind the whole life of the child and not merely the part he will have to play in the industrial and commercial world. Parents are well aware that the schools have to train their pupils to work willingly, to co-operate with one another, to do unto others as they would be done by, and to learn how to occupy themselves properly and happily in their hours of leisure.

The spending of those leisure hours is of special concern to parents. They feel the difficulty of supervising their children in their free time, even before school days are over, and they welcome the evenings when their children can attend the play centres away from the dangers and temptations of the streets. Later, when school has been finally left, and paid work has been entered upon, the leisure hours are an even greater problem than before. There is now money of their own to spend, if not to burn. Parental authority, never strong, is now weaker than before. The pull of provided pleasure is stronger, since cash is at hand for its purchase.

Man is a gregarious animal in all his stages and in both

his sexes, and this characteristic does not develop merely late in life. It is innate and was always there. Where the majority go the minority are inclined to follow. The young tend to adopt the customs of their elders. Parents may deplore this fact, but are, nevertheless, disinclined to change their own habits. They have a lingering hope that the schools may be able to do what they cannot or will not try to do, and that the cultural side of education, tinged with vocational and practical work, may give to their children a wish to spend their leisure hours more wisely and more profitably than do their elders.

For this reason, among others, they are inclined to object to Senior Schools being turned into virtual apprenticeship institutions, whether entitled "Technical High Schools" or "Junior Technical Schools." They are not eager to have their children spending hours of their school time in special and exclusive preparation for some one single occupation, in which there may be no opening when the course is completed. Parents prefer a course of instruction which offers a wider choice of employment and at the same time prepares its pupils for the proper spending of their leisure time.

They appreciate some of the advantages of the literary side of the school curriculum. They know from their own experience the pleasures of a quiet evening with books, and they approve of anything which will encourage a love of reading in their own young folk. They look with favour on the establishment of the school library. They do not always understand the Whys and Wherefores of all the in-school and out-of-school activities, but they see and admire some of their effects in keeping their young people together in happy companionship.

Nevertheless, while not desiring a purely vocational education, parents do not think that school work should be entirely divorced from the affairs of the everyday world. The children will have to work for their living when school days are over, and the schools should, in the opinion of the parents, be able to do something to make

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the change from school life to that of industry and commerce less abrupt and more congenial.

The interest of the parents in the school work should be encouraged in every way possible, not only because they have a right to know and understand the Whys and Wherefores of the schemes of instruction drawn up for their children, but also because their help is required in these days of educational economy to mould public opinion and to induce it to approve the additional expenditure involved in the provision of improved facilities for advanced instruction.

The more widely spread the knowledge of the advantages of school life, the less will be the opposition to the extension of that life, and the greater will be the number who will be left at school voluntarily to enjoy the extra year.

Parents have to be convinced that the pecuniary loss in wages will be more than counterbalanced by the moral gain, and that their sons and daughters, even if they do not become richer in this world's goods, will have a richer life and a life which will bring happiness to others as well as to themselves.

The schemes of work will be discussed in later chapters. It is not possible to confine the discussion solely to what should be done in the last year of full-time education by pupils between the ages of fourteen and fifteen years. That year is not an isolated year which can be separated from the preceding years. It is merely the last year of an organised course of full-time instruction, starting at three or four years in the Nursery Class, continuing in the Infants' Department and in the Junior Department, and ending in the Senior Department, the so-called Senior School. Even there it is not completed, since other influences will build on it later.

There has been and there still is, unfortunately, a strong tendency to look on education in Elementary Schools as being in three absolutely separate departments, the Infants', the Junior, and the Senior. The

three departments may be separate for administrative purposes, but there should, nevertheless, be no separation in the schemes of instruction running through the three departments. The emphasis is and has been laid on the administrative separation and not on the essential continuity of the instruction. The methods of teaching in the three stages have differed too much and unnecessarily. The active and interesting work of the Infants' Department has been succeeded by the passive and rather dull abstract work of the Junior Department, and this has been followed by the cultural and practical work of the Senior Department.

It cannot be right that the junior work should differ so radically from that of the other two stages. Yet it is difficult to see how a really effective change can be made in the junior work, so long as its pupils are tied fast to desks and have little opportunity for activity and movement. Only lately has the practical room appeared in the Junior School. Its value cannot be great so long as it is the custom for a Junior School class to contain fifty pupils even when practical work is being attempted. Even if the curious method of sanctioning staff adopted by the Board of Education made it possible to reduce the size of classes in Junior Schools to forty-four, the position would not be much better; in Senior Schools, with older pupils more able to work independently, two teachers are sanctioned for a practical class of forty pupils, and this staffing is meagre enough. Whatever Local Education Authorities intend to do in the future, at present the normal size of a junior class is fifty, and no extra staff is approved for those Junior Schools which make a speciality of practical work.

It is impossible in this book to deal at any great length with the work of any other department than the Senior. It must, here and now, be emphasised that the success of the work in the Senior School depends to a large extent on the preparatory work of the Junior School, just as the work of the Junior School depends on that done in the

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Infants' School. It is a misfortune that so much of the school time in the Junior School is, if not wasted entirely, at any rate not spent to the best advantage owing to parsimony in staffing and equipment.

The work of the Junior School can be made far more effective, and also far more interesting to its pupils, if greater and better facilities for practical work are afforded to it. The extra time devoted to practical work does not affect adversely the instruction in the three "R's." The illustrations between pages 80 and 81 show some of the work of a Junior School, not in a new building nor in a good neighbourhood, where special emphasis was laid on practical work. Excellent results were obtained in Arts and Crafts, and these were accompanied by marked improvement in the three "R's."

As stated above, the course of instruction in the last year of the Senior School life must depend largely on what has been taught in the two or three preceding years in that school, just as the work in the first year of the Senior School must be affected by the various courses of instruction in the last year of the contributory Junior Schools. Continuity must be the guiding rule, and no sudden change should be made either in the character or in the atmosphere of the instruction. For instance, it would be absurd to start teaching a foreign language in the last year of the Senior School course, unless there was a strong probability that the pupils would continue its study afterwards in part-time classes or in some other way. Whatever may be the educational advantages to be derived from the study of a foreign language, very little profit can be expected from a course so short as one year, even if five periods could be given to the subject each week. If a foreign language is to be taught in a Senior School, its instruction should begin in the first year and not later.

Whether or not a language other than English should be taught in a Senior School, and, if so, in what sections of that school, will be discussed later. Here the question is

referred to merely to emphasise the fact that the whole course of the instruction should be continuous throughout the three or four years of the Senior School life. The standard of work will, of course, advance with the years, and the instruction will become more and more individual in character. The pupils will be trained to work more and more independently in preparation for the time when they will no longer have the skilled and sympathetic guidance of their teachers. They have to be trained to stand on their own feet without special support, so that the change from the guidance and discipline of the school to the comparative freedom of the after-school life will not be too violent.

There should be, however, no abrupt change from class instruction to individual work. The two systems should run side by side throughout the whole school life in all departments, but the individual work should be possible to a far larger extent in the Senior School, and especially in its last year. This individual work will not only affect the work under the school time-table, but it will affect also the general supervision of the school itself.

The pupils in the top forms should be taking an active part in self-government as a preparation for the life and duties of a citizen. In the forefront of its programme, for the last year especially, the school must place the training for and the incidental teaching of citizenship.

## Transfer of Pupils to Senior Schools

THE Hadow Committee recommended that pupils be transferred to Senior Schools from Junior Schools at the ages of eleven years, and this is now the usual practice. The ages are generally calculated from the 1st August in each year, and the pupils enter the Senior Schools either at the beginning of September or towards the end of August.

The ages of pupils on entry vary, the youngest being eleven years and one month and the oldest twelve years and one month. There is no psychological reason for accepting this wide variation in ages on entry. The 1st August is taken as the deciding date, simply because the Secondary School year begins for statistical purposes on that date.

The age of pupils on entry to Senior Schools is important now and will remain equally important even when the age for compulsory attendance at school has been raised to fifteen years, since it affects the length of time that a pupil will spend in a Senior School and since it will affect the progress made by the pupil, so far as educational progress can be affected by improved accommodation, equipment, and staffing.

It would not be so important from the pupil's point of view if the higher classes in the Junior Schools had facilities for advanced instruction equal to those of the Senior School, but that is not the case. It does not seem right that a pupil shall have a shorter Senior School life merely because he has been born in the later months of the year. At present, if his birthday is in August, he will not be admitted to the Senior School until the following year, when he will be twelve years of age, and he will consequently have in the normal course of events

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a Senior School life of two years only, and will have to stay an extra year in the Junior School. A six months' promotion system is adopted in some areas where accommodation for senior instruction is deficient, and this might do something to overcome this difficulty, but it necessitates reorganisation of all the three departments every six months, a proceeding that naturally does not meet with the approval of the head teachers.

It is certainly advisable that the Junior School shall have its pupils for three years, but this should not necessitate the retention of some of its pupils up to the age of twelve years or over.

It is important that the Senior School shall have at least a three years' life if it is to make its firm imprint on its pupils. At present, the school life of its pupils varies from two to three years. The Senior School life could be lengthened, if the ages for entry were reckoned from the 1st January instead of from the following 1st August. All pupils would then be admitted to the Senior Schools in the calendar year in which their respective eleventh birthdays fall.

The objections to this suggested arrangement, usually advanced, are that it would be a departure from established practice and that it would involve some of the pupils sitting for the Annual General Examination, held in March and April, at the early age of ten years and three or four months, and these pupils might not do well in the examination.

Precedents in education have ruled too long. There is no special sanctity attached to the First of August. It is the first day in the statistical Secondary School year, and the Secondary School year was originally based on the University year. The 1st August is also practically the beginning of the longest school holiday.

There seems no particular reason why the age of admission to Senior Schools should remain dependent on the date on which a University or a Secondary School starts its academic year or even on the date on which the

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longest school holiday begins. It is possible that holidays will be "staggered" in the near future, and that the longest school holiday will not start for all schools on or about the 1st August. This reform may affect the dates of holding the School Certificate Examinations. These may in future be held in December, and, if so, the age of its candidates may be lowered by as much as six months. If this alteration does take place, there will probably be less objection raised to calculating the ages for admission of pupils to Senior Schools from the 1st January instead of from the following 1st August, though there is no real connection between the two things.

Ten and a half years is certainly an early age to fix for deciding whether or not a child is capable of profiting by advanced education. That is generally admitted, but the same objection might well be raised to the age of eleven years. The fault lies largely in the examination. It has been in the past, and still is, too formal and too academic. English, which it is impossible to mark consistently, and formal Arithmetic have been fairly exclusively used in the deciding tests, with or without a more or less useless oral examination. Intelligence tests and intelligent examiners are the special needs. This is slowly becoming recognised, but what is not widely recognised is the necessity for arranging for a possible transfer from Elementary Schools to Secondary Schools at a later age than eleven years plus. Unfortunately, this is made difficult by the fact that foreign and ancient languages are taught in the first two years of Secondary Schools and not in the corresponding years of the Senior Schools. Secondary Schools do not welcome, into their second or third years, pupils who are short of a subject considered essential in the Secondary School courses of study. This difficulty would be resolved if the pupils, admitted at a later age than eleven years plus, were excused one of the foreign or ancient languages instead of being compelled to take the traditional two.

The age of admission to Secondary Schools may not, at

first sight, seem to be germane to the age of admission to Senior Schools or to the consideration of the courses of study in those Senior Schools to be arranged for pupils between the ages of fourteen and fifteen years. It is, however, really germane to those questions, since at present the age for admission to Secondary Schools is the same as that to Senior Schools. The age for admission to the two classes of schools need not be interlocked. They are interlocked, since the bureaucratic mind worships uniformity and would be extremely shocked if it were suggested that it is really unnecessary to retain the same age for the two purposes.

Changing the date for reckoning the age of eleven plus from the 1st August to the preceding 1st January for Senior Schools and not for Secondary Schools might result in a pupil, transferred from a Junior School to a Senior School, being drafted into a Secondary School at the end of his first year in the Senior School. This would make an extra break in his school life. Even so, the year in the Senior School would probably profit the pupil more than an extra year in a Junior School, in spite of the extra break involved. If transfers to a Secondary School are allowed, as they should be, at a later age than eleven years plus, those transfers must, of necessity, be from Senior Schools, since in the future all pupils will be transferred to Senior Schools some time before they reach the ages of thirteen or fourteen years. If no objection is to be raised to such a proceeding, there is no overpowering reason against the transfer of a pupil from a Senior School to a Secondary School at the age of twelve years.

## Classification of Pupils Admitted to Senior Schools

IN most cases, probably, the majority of the pupils admitted to Senior Schools will have sat for the Annual General Examination of eleven-year-old pupils, since that Examination is generally used to sift out pupils for Secondary Schools and also in some districts for Selective Central Schools. The Examination might well, as in the City of Nottingham, be confined to a much smaller number chosen by the head teachers of Junior Schools as likely to profit from Secondary Education or by that similar education given in Selective Central Schools. This would save many pupils from the unnecessary strain of an examination and would also considerably reduce the labours of the examiners and the expense of the examination. However, precedent requires that established customs shall continue, and so the majority of eleven-year-old pupils will continue to be examined as has been the custom in the past, in order that about 10 per cent. of them, or less, may have a chance of joining Secondary Schools.

The head teacher of the Senior School, when starting to classify his entrants, will have before him the reports of the Annual General Examination, the fully detailed reports of the head teachers of the Junior Schools from which the entrants came, and the results of the intelligence tests to which they were submitted at the age of seven years. There should be no great difficulty in placing each pupil in his appropriate class, when the school is large enough to have more than one class in each age-range, i.e. more than one class entry each year. It may be necessary to alter this classification to some extent later on with experience of the pupils' reaction to the wider and more interesting curriculum of the Senior School.

### *Classification of Pupils Admitted to Senior Schools*

The standard of classification in the separate Junior Schools may not always be the same, and the classification of a Junior School may not correspond in every respect with the results of the Annual General Examination. Where great differences are found to exist between the reports of the Junior School head teacher and the examination results, special enquiries should be made. Apparent faults in the Junior School classification may have some good underlying reasons for their existence. A high intelligence quotient may be accompanied by physical weakness or by irregular school attendance. In such cases, where the intelligence quotient is high and the report of progress from the Junior School unsatisfactory, not only are special enquiries essential, but also very often special treatment of an educational nature in the future.

Increased interest due to the wider curriculum may cause marked improvement. Still, in the first instance, it is safer to work on the classification of the Junior School, bearing in mind, of course, that the standard of classification varies from Junior School to Junior School. Later, experience will show what changes, if any, have to be made to suit the capacities and abilities of the individual pupils. The question has been raised at times as to whether or not pupils in large Senior Schools, with three or four class entries each year, should be classified according to their respective abilities into "A," "B," "C," and "D" sections in each "year" or age-range. It has been suggested that classification on lines of ability leads to the development of an inferiority complex in those not placed in the "A" or "B" sections. It might—since the days of miracles are not past, and since inferiority complexes arise from many curious reasons—but it is far more likely that a pupil would develop such a complex if he were put into a class where he would be always far in the rear, however hard he tried. Moreover, it is not likely that the inferiority complex could or would attack the whole of a class of thirty pupils, even if the class is

### *Education up to Fifteen Years*

labelled "C" or "D" on a time-table they never even glance at.

In their own particular class they have the opportunity of competing with one another, each with a chance of rising to the top in some subject or other. Each knows full well that the chance of such distinction is much greater in the class in which he has been placed, even if labelled "C" or "D," than it would be if he had been transferred, for some reason beyond his comprehension, to a higher class, labelled "A" or "B," where the pace is greater and the effort called for far beyond his powers.

In a Senior School there is opportunity for showing capacity for tackling some branch of work to which little or no attention could be paid in the Junior School. Nature usually provides some consolation for apparent lack of talent. It is generally possible to discover what this is in the case of each pupil and then to build upon it a course of instruction and training. Many a backward child has shown marked capacity in some one subject, and that not always on the side of practical instruction. Building on this an interesting course of instruction has often given results which have surprised and gratified those who initiated the experiment. The orchestra, the choir, the stage, and the field club have given satisfactory results in cases which had before seemed hopeless. The playground and the playing field demonstrate every day the power of sports in removing depression arising from failure in academic studies.

Inferiority complexes are far more likely to come from misunderstandings between teacher and taught than from segregation of pupils of equal ability in the same class for teaching purposes. Such pupils are not isolated for all purposes. They rub shoulders with the rest of the school in all school functions and on the playing fields, where their intellectual deficiencies do not seem to them to be of any great importance.

The backward pupil, taught in a class composed of his intellectual equals, gains by receiving more individual

attention. His class is smaller than the normal size, whether it is in a Junior or in a Senior School, and therefore the teacher has more time to spend on each individual pupil. If the class is an admixture of all sorts and conditions of pupils, resembling one another only in age, its size would be the normal and therefore larger than thirty in number, and it would not be possible for the teacher to give special attention to the backward pupils without reducing unduly the allowance to the rest of the class. The objection, if there is one, to putting those of equal ability into the same class ought to apply with equal force to the segregation of those with ability above the normal into Selective Central Schools and to the massing of those less well endowed mentally into ordinary Senior Schools with worse accommodation and equipment ; but apparently it does not, for some unexplained reason. This practice does not cause the development of an inferiority complex in the minds of the Senior School pupils, though there have been at times signs of an undue self-satisfaction, if not of an unwarranted superiority complex, in both the pupils and the staffs of the Selective Central Schools.

The separation of the Senior Schools into two types, Selective and Non-selective, may have its advantages and its excuse in a small town or in an isolated district, where there are two small Senior Schools, each with, say, two class entries each year. The classification of the pupils comes nearer to perfection when the cleverest pupils are drafted to one of the two schools and the remainder to the other school. Each age-range is then divided into four grades, whereas if both schools were of the same type they would each contain in each age-range two classes of the same intellectual composition, and the pupils in that district would be in two grades in each age-range instead of in four.

As a rule, the two types of Senior Schools, Selective and Non-selective, differ not only in the abilities of their respective pupils but also in the character of their respective

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curricula. The curriculum of the Selective Central School is generally predominantly literary and usually includes a foreign language. In the Non-selective Senior School there is more emphasis laid on practical work, and usually a foreign language is not taken when there is a Selective Central School in the neighbourhood, and often when there is not. There is no educational reason for these marked differences; the basis of them is probably in tradition. The earliest Selective Central Schools tended to adopt curricula very similar to those of the Secondary Schools, which always included two languages in addition to the mother-tongue. With their school life much shorter than that of the Secondary Schools, the Selective Central Schools could not, with any hope of success, attempt to tackle two foreign languages, and so they did what they considered to be the next best thing: they took one foreign language, and that was French. The later Selective Central Schools followed the example of their elder brethren. The Senior Schools of the Non-selective type worked out their own salvation and drew up courses of a more practical type, which they considered suited the requirements of their pupils.

It is obvious that the inclusion of a foreign language in the curriculum must reduce the time available for other subjects on the time-table. A foreign language requires at least three periods of forty-five minutes each to be given to its study each week, and preferably four or five periods, if satisfactory progress is to be made by the pupils. If the requisite time cannot be spared, the subject had better be left severely alone.

These hours required for the study of a foreign language, whether they amount to two and a quarter, to three, or to three and three-quarters hours, can hardly be taken from the thirteen and a half hours usually devoted to English, Mathematics, Geography, History, Physical Culture, and Singing. They must, therefore, come out of the eight hours allocated to the practical subjects, and perforce the curriculum becomes predominantly literary. What is

worse, it is consequently presumed that a curriculum of that complexion is the best for all pupils well endowed by Nature and heredity with brains and understanding.

The inclusion of a foreign language is generally based on the idea that the study of an inflected language leads to clarity in speech and writing. If this is the reason for its adoption by Selective Central Schools, it is strange that they preferred French to German. German has far more inflections and, in addition, its literature is rather more suited to the immature mind. It would not be popular nowadays to advocate the study of German in Selective Central Schools in preference to that of French, but the conditions have not always been so unfavourable as they are now, and yet French has always been the most popular language in Selective Central Schools, even before 1914. Its adoption cannot be due to its vocational value, since it has always been favoured by those who are strongly opposed to vocational education. Tradition must have been the deciding factor.

Theoretically, if it is correct to include French in the curriculum of Selective Central Schools, it should also be correct to include it in the courses of study in the timetables for the "A" and "B" classes in Non-selective Senior Schools with three or four class entries each year in those districts, such as the City of Nottingham, where there is no Selective Central School and where all the Senior Schools are fully equipped District Schools, taking from their contributory Junior Schools all the pupils of the prescribed age, whatever their abilities, who do not join Secondary Schools.

In few of the thirty Nottingham Senior Schools is a foreign language taught. In a small number French is taught in the "A" classes, and in two or three in the "B" classes as well. The omission of the teaching of French from the great majority of the thirty Senior Schools in the City of Nottingham was not due to official action, though it certainly received official approval.

French was taken originally in a number of Senior

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Schools which do not now teach it. Its teaching has been given up because experience showed that the time given to it could be spent to better advantage in other ways. The dropping of the foreign language has not affected the popularity of the schools in the slightest degree from the point of view of either parents or pupils. It has not had any appreciable effect on the voluntary extension of the school life; as high a proportion of the pupils stay at school, full-time, after their fourteenth birthdays in the schools which do not take French as in those that do. The results can be taken as fairly reliable, since, in the City of Nottingham, the Senior Schools are each and all large enough to have from three to five parallel classes, and since the educational experiments have been carried out in several schools with similar staffing and equipment and accommodation, serving similar districts.

It may be that in other districts different conclusions may be drawn, since conditions are not the same everywhere. It should not, however, be presumed, without experiment, that they are so different as to require as a matter of course the introduction of a foreign language in the course of study arranged for pupils in Senior Schools, whether those schools are selective in type or not.

It should not be assumed, either, that the raising of the age for compulsory school attendance to fifteen years necessitates the adoption of a curriculum in the Senior Schools with all the characteristics of the present-day Secondary Schools. Even Secondary Schools, conservative as they are by nature and tradition, are now seriously considering whether or not they shall make radical changes in their courses of study to make them more suitable to present-day conditions. They may possibly decide that the introduction of more handiwork will make the education they give or offer more acceptable to their pupils and more effective in its final results. They have already gone so far as to state that "the studies of the ordinary Secondary Schools should be brought into

*Classification of Pupils Admitted to Senior Schools*

closer contact than at present with the practical affairs of life," and they may even begin some time to put their words into deeds.

Whatever may be the decision of the Senior Schools in respect of the teaching of foreign languages, that decision should be founded on the results of experiment and not be based merely on what has been done in the past. "Whatever is" is not always right or best.

## Co-education, or the Single-sex School?

IN the Senior School it is far easier to arrange the timetables of the various classes when the school contains one sex only. Even confirmed co-educationists acknowledge this to be the case, but they consider that the difficulties can be overcome and should be overcome or be put up with, in order that the two sexes can be taught together in the same school and in the same classes. They base their arguments in favour of co-education on the ground of Nature's practice. Families are mixed, and the two sexes work and play together throughout life. They had, therefore, better learn in their schooldays to co-operate with one another.

It may well be that the school is the best training-ground for co-operation as for many other virtues, but it does not necessarily follow that the only way of attaining the desired results is to "mix" both the schools and the classes in the schools. True co-operation can be fostered even when the schools contain one sex only. Co-operation between the two sexes does not necessitate doing the same school task in the same classroom independently of one another.

Co-educationists talk as if they thought that in a "mixed" school the boys and girls are together during the whole of the twenty-seven and a half hours they spend on the school premises each week. This is far from being the case. The sexes are separated for Games and for Recreation, for Physical Culture, and for those numerous subjects which are generally taken by one sex only, namely, the various Home Crafts for girls and Wood- and Metal-work, Gardening, etc., for boys. The time spent on these special subjects is very considerable, especially in the last year of the Senior School life. When all these

hours are deducted, there does not remain a great deal of time to be spent in co-education; at any rate not enough to substantiate the claim that the wished-for results could not be obtained in some other way equally effectively, if the sexes were taught entirely separately.

One great advantage of the sexes being taught in separate schools is that the girls are taught by assistant mistresses under a head mistress and the boys by assistant masters under a head master.

It is only right that women shall have the chance of discovering what are the best schemes of instruction for girls. This task has been entrusted to men long enough, and they do not seem to have made a great success of it. The general opinion seems to be that the present schemes of instruction both for girls and boys are by no means perfect as a preparation for life, unless it is to be spent in the precincts of a University.

Granted that in the past, when women were free to experiment in the educational field, they tended to copy the schemes of instruction which men then thought suitable for boys. This copying was done, confessedly, to demonstrate what should have been a self-evident fact, that girls can tackle successfully as difficult and as uninteresting tasks as boys were compelled to perform. Later, when the need for driving this point home had passed, the opportunity for original work in grant-earning Secondary Schools had gone, and the schools were bound fast in the fetters of the School Certificate Examination, and no freedom was left for any head teacher, whether man or woman.

So far as the Elementary Schools are concerned, it is only lately that they have had any freedom at all, and some of them have not yet appreciated that times have changed in this respect as in many others. In the Senior Schools there is freedom for experiment, and experiments are required now probably more than ever they were. Women, as well as men, should be given their chance, wherever possible, to try out their own ideas.

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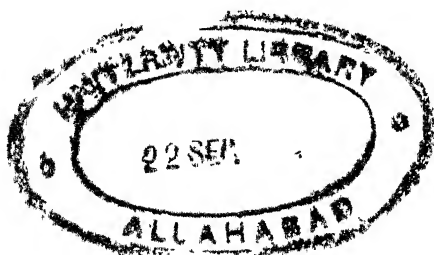
Where there are two sexes in a school, experiments are not so easy to carry out as they are when the school contains only one of the two sexes, either boys or girls, and not both. The curriculum in a "mixed" school must be a compromise between that which is suitable for boys and that which can be made fairly satisfactory for girls. As in "mixed" Senior Schools the head teacher is usually a man, the bias will naturally be in favour of the boys.

When education is in such a fluid state as it is at present, all unnecessary complications should be removed. Experiments should be conducted in single-sex schools to ascertain, if possible, whether or not the education of girls should differ in important respects from that of boys.

When the number of senior pupils is small, as they often are in small towns and in villages, it may be necessary to "mix" the Senior School, in order to make possible satisfactory classification of the pupils and also to economise in building and maintenance costs. Two small schools, one for each sex, cost more to erect, equip, and maintain than a "mixed" school with accommodation equal to the combined accommodation of the two small single-sex schools, and the classification of the pupils in the large "mixed" school would be more nearly perfect than it would be in each of the two small schools. In many small towns and in villages the Senior School is for these reasons generally a "mixed" school, but in many other cases it is not the small number of senior pupils or a belief in the advantages of co-education that causes the formation of mixed schools for the two sexes. There must be some other factors that decide in favour of "mixed" schools. Possibly the predominance of men on Education Committees may have something to do with the erection of "mixed" schools with four hundred and fifty or five hundred pupils on their rolls and with a man as head teacher. In some districts, on housing estates, two "mixed" schools, each with four hundred pupils on their rolls, are erected close to one another, though it

should be obvious that it would have been more satisfactory educationally to arrange for one of the two schools to take boys under a head master and the other girls under a head mistress. When the number of senior pupils between the ages of eleven and fourteen years exceeds four hundred and sixty, two Senior Schools, one for boys and one for girls, are to be preferred on educational grounds to one large school taking both sexes. The two schools, of course, involve the appointment of two head teachers instead of one, but they do ensure that each of the two sexes will get the kind of education and training it should have, instead of an unsatisfactory compromise between the two schemes. If the two single-sex schools adjoin one another, the pupils can meet in social functions on the school premises, and can run conjoint choirs and orchestras and produce together dramatic and other entertainments. The erection of a joint hall, divided in the middle by a sound-proof folding partition, gives increased opportunity for social gatherings, to which parents can be invited. A fully equipped stage at one end of the joint hall is a necessity nowadays for ordinary instruction as well as for Prize Days and for dramatic performances.

The plan at the beginning of the illustration section, between pages 80 and 81, shows the two Senior Schools on the Bilborough Housing Estate at Nottingham. In the City of Nottingham the sexes, though taught in separate schools, constantly meet in their various functions and have many other opportunities of mixing with one another. The schools there have all the advantages of co-education, with none of its disadvantages.



## Apportionment of Time in Senior Schools

IN the past, before Senior Schools for pupils from eleven years of age upwards were formed, the weekly school time of twenty-seven and a half hours in the upper standards of Public Elementary Schools was apportioned roughly as follows:

	Hours.
Religious Instruction, Registration, and Recreation . . . . .	6
English 6 hours, Mathematics $4\frac{3}{4}$ hours . . . . .	$10\frac{3}{4}$
Geography and History . . . . .	2
Physical Culture $1\frac{1}{2}$ hours, Singing $\frac{3}{4}$ hour . . . . .	$2\frac{1}{4}$
Observation Work (Science) . . . . .	1
Brushwork (Flexible-point Drawing) . . . . .	1
Needlework (for girls) . . . . .	} $2\frac{1}{2}$
Drawing and Practical Arithmetic (for boys) . . . . .	
Domestic Subjects (for girls) } in Centres . . . . .	
Woodwork (for boys) . . . . .	$2\frac{1}{4}$
<b>TOTAL . . . . .</b>	<b><u><u><math>27\frac{1}{2}</math></u></u></b>

Practical instruction received very little attention on the school premises. The accommodation for it there was defective and certainly not conducive to its satisfactory performance. The school buildings for teaching purposes generally consisted of classrooms or even of class spaces, not divided from one another by walls or fixed partitions. The school furniture consisted of desks with sloping tops, and they were often fixed immovably to the floor. The hall, when there was one, was reserved for School Assembly, for Physical Exercises, and for Singing.

The literary tradition and the public demand for per-

fection in the three "R's" did not lead the school authorities to place any great value on practical work performed by the pupils. Instruction by word of mouth was considered to be more effective and it was also the cheapest form of instruction which could be given.

A few of the older pupils received practical instruction, the girls in Domestic Subjects, the boys in Woodwork, but this was given in Centres, which drew their pupils from several separate schools. These subjects were not considered integral parts of the school curriculum, but rather as excrescences, which had no intimate connection with the other subjects on the time-table. They were dubbed "vocational subjects," and treated as such. Their educational value was considered so small as to be negligible. Head teachers took little interest in them and seldom visited the Centres, and when they did make an occasional visit they were not always welcome. The instructors and instructresses looked askance at attempts to correlate their subjects with the general work of the schools from which their pupils were drawn. They considered themselves wholly responsible for their own syllabuses. This feeling still persists in very many of the Centres, and also in some of the schools where the instruction is given on the school premises and the instructors and instructresses are full members of the school staffs. Bad practices die hard.

So far as the schools were concerned the practical work was, therefore, confined to Needlework for girls, with a little painting of an inartistic and useless kind, and to Freehand, Scale, and Geometrical Drawing and some aimless cardboard work for boys. The Science was theoretical and its advantage doubtful. It was properly called Observation Work, and the observations were made by the teachers and passively recorded by the pupils. Similar conditions still exist in some backward districts, though great changes have been made for the better in most educational areas, even though reorganisation has not been completed in every case.

The Education Act, 1918, and the Hadow Committee have both played their particular parts in bringing about improvements. Public opinion, from whatever source derived, has made it clear that in this democratic country better facilities must be provided not only for the select few but also for the general mass of the pupils in Public Elementary Schools.

So far as lighting, heating, ventilation, and general cheerfulness are concerned, there has always been plenty of room for improvement in the older Elementary Schools. The ecclesiastical architect, in his planning of schools, was not generous with air and light, possibly because they were not admitted to churches and because it was feared that the attention of the pupils would wander and their concentration on their school tasks be lessened, if they were able to see or hear anything extraneous to their lessons. The older Elementary School buildings were, therefore, given externally and internally the worst features of prisons and churches.

If such buildings are to be made really suitable for advanced instruction of senior pupils, alterations involving considerable expense will have to be made in their structure. Not only must the amenities of the buildings be greatly improved, but also facilities for practical work in Arts, Science, Handicraft, etc., must be provided on the school premises. It will not be sufficient merely to transfer the Woodwork and the Domestic Subjects from Centres to the school buildings. Far more than that is required if satisfactory instruction in all its branches is to be given to the pupils who will have to attend them. In some cases it will not be economical to carry out such alterations to the old buildings and, therefore, new buildings will have to be erected, fully equipped for all forms of instruction, both practical and academic.

There are many Authorities who have already made progress in providing all they consider necessary for their senior pupils, but, unfortunately, even the most progressive of them have left their older buildings with little

better accommodation for educational and hygienic purposes than existed in them before. Apparently they consider that expensive alterations to such buildings need not be undertaken, since those buildings will, as a rule, be used merely for the education of infants and of junior pupils and not for those over eleven years of age. They evidently do not understand that the progress of the older pupils in the Senior Schools will and must depend to a great extent on the kind of preparation they receive in the Infants' and Junior Schools. The foundations must be laid satisfactorily. The advanced work of the Senior Schools requires a wider basis for its development than that which it has been possible to provide hitherto in the Junior Schools, with their poor accommodation and equipment and in their large classes.

Until Local Education Authorities become convinced of the unwisdom of their present policy of starving the Infants' and Junior Schools, which are the preparatory schools, the Senior Schools must do the best they can and thank their stars that they, at any rate, are being supplied with some of the necessary facilities for giving a good general education.

The Senior Schools have still to decide how the time available shall be divided up between the academic and the practical subjects. In the old unreorganised schools, with their faulty equipment, the practical subjects had little chance of showing their educational value. In the new and in the properly adapted Senior Schools there is ample provision for it, and not unnaturally the advocates of practical instruction are inclined to go rampant and to run the practical idea to death. They ask for as much time to be spent on the branch of the practical work in which they are specially interested as would be required to make the average pupil adept in manual skill and endowed with far more knowledge of the underlying principles than ever should be expected from a pupil of fourteen or fifteen years of age.

Each advocate looks on his pet subject as if it were still

taught in a Centre and isolated from all other subjects on the time-table, neither aiding them nor being helped by them. The Centre may be slowly dying as a place of instruction, but the Centre idea is as strong as ever, and the compartmental mind is still flourishing. Each faddist seems to think that the principles of teaching are different in each subject, and that manual skill attained in one practical subject does not help its attainment in another practical subject. He does not even accept that there is any "transfer" from one subject to another and that, for instance, a boy who has found carefulness and accuracy essential in a Craft-room will be induced, consciously or not, to be careful and accurate in the Science room, in his observation work in the Art-room, or in his Mathematical work in the classroom. One practical subject does help another, especially when the interest of the pupils is engaged in both; but this is not generally acknowledged. There is still the demand for the same amount of time to be given to the traditional practical subjects, Woodwork and Domestic Subjects, now as was given formerly when they were the only practical subjects taken.

Woodwork for boys and Domestic Subjects for girls have been taught in connection with Public Elementary Schools so long, and have each been given half a day each school week, that now no one is willing even to consider whether or not it is still essential to give one-tenth of the school time to each of these subjects during the whole of the extended Senior School life. In fact, there is a strong tendency to demand more time for them, even if the granting of this extra time would crowd out some other subject or subjects of high educational value, or would involve the giving of utterly inadequate time to subjects which cannot be ignored, if a really good all-round general education is to be afforded to the pupils of the Senior Schools. It seems to be overlooked that, in the past, school life was much shorter, and that the continuance of education, part-time, after full-time school time had ceased was then less frequently practised than it is to-day.

Tradition still holds the field and apparently what has been must be—only more so.

A demand is now being put forward that girls in Senior Schools shall spend on Domestic subjects as much as one-fifth of their time. This exorbitant request is based on the fact that the girls will in all probability be housewives later in their lives, and that they must, for the sake of their putative families, be made fully efficient in that work before they leave school, in spite of the fact that they will be occupied in some other occupation for six or seven years in the interval between leaving school and setting up a home of their own. This is an excellent example of the vocational idea gone mad. The educational value of a subject should be the deciding factor in fixing the allowance of time for it and not merely its possible vocational use.

It is not only in girls' work that there is this demand for undue concentration of attention on one vocational subject. In boys' Senior Schools the same idea is rampant, though in these schools Woodwork, with or without Metal-work, takes the place of the girls' Domestic subjects. As Woodwork has been taught to some few senior boys in centres for half a day each week in the past, it must apparently be taught to all henceforward for half a day each week throughout the whole of the Senior School life, and the only alteration that may be considered is the possible inclusion of Metal-work. Yet there are several other subjects which would train the mind, the hand, and the eye as effectively, but they have not been taken in the past and therefore are considered beyond the pale. The object of the Senior Schools is to turn out sensible and adaptable students and not merely to create a nation of competent and skilled wood- and metal-workers.

What the school sets out to do is to give a well-balanced education in which abstract and concrete work receives each its proper share of attention. There will be less complaint of an overloaded curriculum, if compartmental instruction is replaced by co-operation and correlation.

The limited time available must be kept in mind when deciding how much time shall be apportioned to any one subject. There are but twenty-seven and a half hours in all in the day-school week, and of these not less than six are required for Religious Instruction, Recreation, and Registration. Twenty-one and a half hours remain for everything else. Of these it is generally agreed that two hours should be spent in Physical Culture, and one and a half in Singing and Voice-training. History and Geography demand their traditional two hours and should not be denied them. With these allocations there remains sixteen hours for English, Mathematics, and the practical subjects, including Hobbies. These sixteen hours may well be divided equally between the academic and the practical subjects, giving eight hours to English and Mathematics and eight to Science, Arts, and Crafts. This looks at first sight as if it would be an alarming reduction in the time devoted to English and Mathematics, in comparison with the time allocated to those two subjects in the past. Actually the reduction is not so great as it appears, since both subjects will be dealt with, incidentally or directly, when the so-called practical subjects are being taken. History and Geography can spare a little of the time allocated to them, since some practical geography is taught in the Science lessons, and there is no need to duplicate the instruction. The time so spared can be given to English. Mathematics, without being unduly generous, can give up some of the time formerly allocated to it, since so much practical Mathematics will be taken henceforward during the lessons on Science, Arts, and Crafts. In the past, when mathematical work dealt solely with abstract principles with little or no application to practical affairs, the interest of the pupils was seldom engaged. Errors seemed then to them to have no serious consequences, and accuracy did not automatically follow practice. In practical work the case is altered. Inaccuracy and carelessness bring their own punishment and teach their own lessons, and the desired

educational results are obtained in a shorter time. Mathematics can, therefore, well afford to be satisfied with a smaller allowance of time than it had received before, giving to English the time it demands and must have for its various branches and aspects.

English must receive special attention. It is the medium of all instruction, and its field is much wider than it used to be. Different methods of approach are now being employed. For instance, Dramatic Work has come into its own, encouraged by the provision of fully equipped stages in the halls of the schools. The Drama, if properly dealt with, takes up a great deal of time, but the time spent on it is or should be time well and profitably spent. Pupils can now make more rapid progress than they ever did before. They are more interested in their varied work and are, therefore, more attentive, more observant, and more ready to absorb. The specialist teacher has greater knowledge of his subject and is more skilled in its presentation. Teachers of other special subjects co-operate by insisting that the English spoken and written, while they are in charge, is not open to adverse criticism. Everything tends in a well-organised school to the full and profitable use of every minute allocated to the subject.

The time definitely allotted to English could occasionally be reduced somewhat, if it is understood that opportunity will be given for an increase when some special work has to be undertaken.

It is not advisable to have too much detail on the main time-table. If the time allocated to Religious Instruction, Registration, Recreation, and Physical Culture appear on it, the remaining necessary information can well be given in the form of an abstract, showing the number of minutes it is proposed to spend each week in the teaching of each of the other subjects. The time-table of old which showed, for instance, in English the number of minutes which would be given each week to each of its sections, poetry, prose, spelling, composition,

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writing, etc., and the time of the day when each of these sections would be dealt with, is utterly out of date, but unfortunately not out of use. Head teachers should have far more freedom than has been given to them in the past to arrange the work of the school to suit circumstances as they arise.

In a Senior School with specialist teachers it is not possible to give to the assistant teachers equal freedom, except in the arrangement of their work for the day or the week, since alterations in the amount of time devoted to one subject would affect the allocation of time to another subject or to other subjects, taught by other teachers, and so would upset the work of those other specialist teachers. Still the main time-table should be plastic, and it should not be necessary to seek fresh signatures from the Education Officer or from H.M.I.s, whenever the arrangement and the amounts of time allocated to the various subjects have to be altered.

The apportionment of time allocated to practical subjects should be decided, approximately, before the plans for a new Senior School or for the adaptation of an old school for advanced instruction are drawn up, especially when the practical rooms count on the accommodation of the school, as they generally do, and must be used every day and all day for the teaching of the subjects for which they are respectively equipped.

When a Senior School, planned for ten classes, contains six classrooms and four practical rooms, each accommodating a class of forty pupils, it is clear that it is intended that four-tenths of the total weekly school hours shall be spent in the practical rooms, and that approximately the same amount of time shall be spent in teaching each of the four practical subjects. Some departure from this allocation of time is possible when there is an extra classroom not counted on the accommodation or when there is a hall, and a gymnasium, or a hall-gymnasium.

The gymnasium will be used in conjunction with the playground and the playing-field continuously, and this

will affect the allocation of time to every subject on the time-table. This is an additional reason for leaving off the main time-table, which is signed by the Education Officer and H.M.I., as much detail as possible. Where a fully detailed time-table is insisted upon, there is a natural tendency to obey the letter too strictly, and then the general instruction suffers.

Schools are not, of course, planned with the expectation that each pupil in each class in each year will require or receive the same allocation of time in each and every subject of the curriculum, but the planning does decide, roughly, what proportion of time of the school as a whole shall be spent in practical work.

When the provision of practical rooms is on the small side, the head teacher is compelled to give to the "A" stream and sometimes to the "B" stream a much smaller allowance of practical work than they ought to have or than the head teacher would like to give them, not always the same thing. Head teachers generally work on the exploded theory that the "C" and "D" streams will not thrive unless they receive a double dose of practical work of some kind or other. Obviously, if this extra dose is administered to the "C" and "D" streams, there will be less of it left to be used for the benefit of the "A" and "B" streams. Head teachers may be wise enough to wish to allow some partial specialisation in some specified practical subject in the last year, even for the "A" streams. This is impossible if the provision of practical rooms is skimped, as it is sometimes on the grounds of the great expense involved in the erection of the rooms intended for practical work. Those rooms require far more floor-space and are therefore more expensive to build than classrooms, which have merely to accommodate desks and cupboards in addition to the pupils and their teachers.

The accommodation for practical work in all Senior Schools, Selective or Non-selective, should be sufficient to provide eight or nine hours of practical instruction for

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each pupil on the rolls. This will, of course, not necessitate giving each pupil eight or nine hours of practical instruction, though, unfortunately, it often has this effect. It does permit the giving of a fair amount to each pupil and an extra amount to those who will specially benefit from it and to those who cannot thrive on a too literary diet.

This provision of accommodation for practical instruction should be given to all Senior Schools, whether they are of the hybrid type, the Selective Central School, or whether they are Non-selective and receive from their contributory Junior Schools all the pupils of the prescribed age who do not join Secondary Schools.

It is advisable that in addition to the rooms equipped for Art, Science, and the Crafts, there should be one or two classrooms with a floor space of 700 or 750 square feet and furnished with dual tables and chairs, not with desks. Such rooms can be used for Craft-work, and also are available for the teaching of the practical side of Geography and other subjects, which are generally looked upon as literary subjects. If they do not adjoin the other teaching rooms, they can also be used for the Music lessons. It aids the literary work if a room larger than a classroom can be provided as a Library. This room comes in usefully for sectional work and also for individual and research work in various subjects by the older and more responsible pupils of the school.

The general planning of Senior Schools is referred to in later chapters in this book. It is mentioned here to emphasise the fact that the curriculum depends to a large extent on the kind of accommodation provided, especially on the practical side.

## Specialisation

THE specialist teacher is essential in all Senior Schools, whether selective or non-selective. No one would nowadays advance or support the idea that a teacher should be expected to teach successfully every subject which pupils above the age of eleven years are required to study, or that so long as the teacher is a lesson ahead of his pupils all would be well.

Many can call to mind from their own school days the efforts of the unfortunate master or mistress who was expected to teach in the lower forms all the subjects on the time-table, including Music and both the living and the dead languages. Now it is generally recognised that the teacher who has to tackle the task of introducing his pupils to a new subject, such as a foreign language, must be highly qualified in that subject and expert in its presentation.

Elementary education is no longer confined to the study of the three "R's." It now comprises Physical Culture, Music, Art, Crafts, and Experimental Science. No teacher can possibly be expected to have a thorough knowledge of all these subjects, and if he has not got it, he should not be asked to teach them. The services of the specialist teacher must, therefore, be called upon and not merely for pupils above the age of eleven years, but also for those below that age. The specialist teacher is now working in very many Junior Schools and also in some Infants' Schools, to the great advantage of the children placed under his charge. No longer in Junior Schools is the teaching of Physical Culture, Singing, and the Arts and Crafts entrusted exclusively to the class teacher. The specialist plays his or her part in those schools under great difficulty, since neither the Board of Education nor the Local Education Authorities, with few exceptions, yet appreciate that good equipment, ample space, and addi-

tional staff are required if junior pupils are to make proper progress in the æsthetic and in the so-called practical subjects. Possibly the Junior Schools are themselves somewhat to blame for the slow progress towards a wiser policy. They have been obsessed with the idea that they must concentrate the attention of their pupils on the study of the three "R's," in order to prepare for the Annual General Examination of eleven-year-old pupils, since success or failure in that examination decides in the eyes of constituted authority whether or not the candidates are able to profit by advanced instruction in Secondary Schools or in Selective Central Schools. It is unfortunate that the work of the whole Junior School should have to be based, in the opinion of the head teachers, on the syllabus of an examination, the results of which can affect only a very small proportion of its pupils.

In the Senior Schools the specialists' services must be available for all subjects both for direct instruction and for supervision and correlation. In the teaching of Woodwork and of Domestic subjects the specialist has always had full charge, too exclusively in fact, since hitherto these subjects have not taken their proper place in the courses of study for senior pupils. The position in this respect is now slowly altering for the better, and there is a definite tendency for the teachers of these subjects to become full members of the schools staffs and for them to deal with pupils drawn from one Senior School only, instead of pupils from a number of separate schools, as they did when they were each in charge of a Centre. In Physical Culture, following the erection of fully equipped gymnasias and the introduction of apparatus and its accompanying remedial exercises, the highly trained and thoroughly qualified specialist has taken charge in both boys' and girls' Senior Schools. Science, Arts, and Crafts, with their properly equipped rooms, demand not only highly qualified teachers, but also classes as small as those sanctioned for Home Crafts and

Woodwork, namely twenty per teacher. For Singing and Orchestral Work no one would now try to dispense with the services of the specialist. What has already been found to be necessary in Junior Schools cannot possibly be denied to the Senior Schools. Incidentally, there are very few teachers nowadays who have any practical knowledge of Music. Secondary Schools, from which intending teachers are drawn, do not make a special feature of Music, and it is not now the general custom of parents to expect their children to play the piano or to try to learn to sing. Hence qualified teachers of Music are few in number, and it is necessary to make the best use of those who have the knowledge and to place them in complete charge of the subject.

For the remaining subjects on the time-table the specialists' services are required for co-ordination and correlation, if not for the actual teaching of each subject. In the "C" and "D" classes it is the custom to entrust one teacher with the instruction in English and Mathematics, though the general supervision of the work in these classes remains in the hands of the specialists in those two subjects.

Specialisation has its defects as well as its virtues. What system has not? Specialisation may result in the various subjects not being properly co-ordinated and correlated and in the consequent development of compartmental teaching. This is, however, a sign of defective organisation and is not difficult to avoid. The specialist is human and is inclined to attach undue importance to his subject and to forget that it is merely a part, an important part certainly, of an organised course of instruction. As he is in charge of the teaching of his subject throughout all the classes in his Senior School, he sees to it that there is the essential continuity in the course of instruction from the lowest class upwards. He does not always recognise the necessity for connecting the teaching of that subject with the teaching of the other subjects in the curriculum, and so there may arise a certain amount

of overlapping and a lack of co-ordination. There is vertical co-ordination in his subject, but too little or no horizontal co-ordination with the other subjects on the time-table.

It is not difficult for a head teacher to correct this tendency. It is no new problem. In the past it was not at all unusual for there to have been lack of co-ordination between the syllabuses in the top class of the Infants' School and those in the lowest standard of the Junior School or between the highest standard of the Junior School and the lowest form of the Senior School. In fact, there was a distinct break between the teaching in each pair of schools. Again, a teacher of, say, Standard III has not always seen the necessity for having due regard to what has been taught in Standard II and to what will be taught in Standard IV. Such glaring defects do not condemn the system, but merely the way it is being carried into effect.

Recognition of the defect is half-way to its removal. The basic cause is ignorance, and knowledge its cure. The assistant teachers, whether specialists or general practitioners, should be permitted to know what is the general scheme of work for the school as a whole and also what is its object. They cannot co-ordinate their work with that of other teachers if they know nothing about it. They can get the necessary information if staff meetings are held frequently for discussion of the school work in general. These meetings should be held both when the schemes are being drafted and when they are in active operation. Such meetings and discussions not only make the work more interesting to the assistants and more effective but they also give the assistants a better chance of promotion to headships. A candidate for a headship should have not only special knowledge of one subject, but also sufficient knowledge of the other subjects of the curriculum to be able to supervise them and correlate them and to make a coherent whole of the separate units. Moreover, if the specialists co-operate, there will be little

risk of the pupils thinking that the various subjects they study are not closely connected with one another.

Ultra-specialisation is neither advisable nor essential in a Senior School, even where each and every one of the subjects is in charge of a specialist teacher. The specialist should not be confined exclusively to the teaching of one particular subject. It is possible, without affecting his responsibility for his subject, to let him have some part in the teaching of some other subject, in which he is interested and of which he has knowledge. The Science specialist can teach some Geography and some practical Mathematics either in the Science room or in a classroom. The Music specialist can generally teach English quite satisfactorily, if he knows what is expected from him and what is the general arrangement of the work. The Handicraft specialist can or ought to be able to take Bookcrafts, Pottery, and some branch of Drawing. The Home Crafts teacher can aid in the teaching of Dress-making and Hygiene or Physical Culture, and may be helped by the Art teacher, the Handicraft teacher, and the Science teacher. There are many advantages in giving to the Home Crafts teacher responsibility for drawing up the schemes of work in Needlework and in Dressmaking, even though her time cannot be spared for the actual teaching of those subjects. The teacher of Physical Culture should not be exclusively engaged in the gymnasium, the playground, and the playing-field, but should be given opportunity of taking part in the teaching of other subjects. Later, when age makes a less strenuous life more attractive and more appropriate, fresh avenues of useful work in the classroom will open up to him or her.

The withdrawal of the specialist to take some subject other than his special one presents little difficulty in large schools in the case of Science, Arts, and Crafts, where two teachers are engaged in teaching two sections of a class of forty pupils. Continuity is ensured by withdrawing only one of the two teachers at a time.

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This suggested departure from the specialist system is an insurance against the ill effects due to sickness of various members of the specialist staff. There will always be in the school someone who has had some little experience of the work and so can carry on fairly well for the time being until the absent specialist is again able to return to his duties.

### BIAS

Why are educationists so afraid of bias? Is it merely the effect of tradition? Is it something that has come down from Aristotelean times, when a liberal education, suitable for free men, could not deal with any subject from which mercenary advantage could be gained? Classics, in English Schools, used to rule the day, and pupils spent their school hours laboriously turning good English into bad Latin or Greek, and though they had no poetry in their souls had to rack their brains in the composition of Latin and Greek verses. Apparently it was thought in those days that there was no vocational bias in education, but surely that is not really true. There was then bias of a sort. The pupils were supposed to be soaking their brains in the wisdom of the ages, the Greek and Roman ages, and it was expected that this would give them a good preparation for life, whether that life was the life of a monastery with its clerical duties or the life of an officer and a gentleman with whatever respectable duties fell to his lot. Classical education was expected to foster concentration and also correctness in speech, and both these qualities had a vocational value. The command of the dead languages removed some of the ill effects of the confusion of tongues, which was reputed to have had its source in the Tower of Babel. It did enable educated people, whatever their race, to communicate with one another both orally and by written script.

In the last three decades of the nineteenth century the vocational bias was not so evident in the higher schools. There was certainly a strong literary bias, but this in

itself might fairly be described as vocational. It was never thought that boys, educated in those schools, would ever be called upon to soil their hands in manual labour or to wield any instrument other than the sword or the pen. The practical subjects were not then taught. They were unnecessary from the vocational point of view, and their educational value was not then recognised.

When education became compulsory after 1870, the literary tradition of the higher schools affected the courses of study in the Public Elementary Schools and, consequently, stress was laid in them on the teaching of the three "R's." Probably this was rightly so, since it was essential that the elementary-school pupils should, in the short time at their disposal, learn to read. It was advisable that they should be able to communicate with one another in writing, and have some power of making calculations, both graphically and mentally. More important still in the minds of the educational authorities was the fact that instruction in the three "R's" was the cheapest form of instruction that could be given to the common herd, a very strong argument for its universal adoption.

It is curious how the literary tradition has persisted throughout the years. It is not surprising that it persisted in the Secondary Schools. It was there already strongly entrenched, and it was backed by the Universities. The Bourbons may have lost their thrones, but their spirit still prevails in higher-educational circles. There have been some slight changes in Secondary School curricula, but they still remain predominantly literary. The literary subjects have been somewhat altered, and the living languages have replaced to a large extent the dead languages, but the tendency in the Secondary Schools is still to put the most brilliant pupils on to the Classical Side and to reserve the Modern Side for the remainder. Where both staff and examiners are drawn chiefly from the Universities, the homes of lost causes, changes will naturally be slow in coming.

It is more surprising that the literary tradition has held so long its exclusive hold on the elementary schools, and that this literary form of instruction should have continued so long to be held in favour by the business man. He does still approve, and he can still carry his audience with him when he deplores the "fact," as he sees it, that the three "R's" are taught now much worse than they were in his young days, thus inferring that the "deterioration" is due to the fact that less time is now being spent on their instruction. Actually, if the present school life is compared with that of his time, there is, in all, far more time spent on them now than there was, say, thirty years ago.

It is curious that there should be this strong demand for concentration on the teaching of the three "R's." The business man wants more than mere clerks from the Elementary Schools. He wants employees for the manufacturing side as well as for the distributive side of commerce. He does not make much use of his clerks when he gets them. His letters, including his name under his signature, are typed. Machines make up his accounts, and there is little else left for his clerks to do except to tap a few keys and to listen to a dictaphone. If he doubts whether or not the modern child can read, he has only to use his eyes to be satisfied about the truth. The tremendous circulation of all sorts of journals and magazines proves that the products of the Elementary Schools can and do read. They read voluminously, though not perhaps what he, in his ignorance, would like them to read. The business man does know that he requires employees other than clerks, and he also knows full well that an exclusive diet of the three "R's" is not the best for those who will later have to tackle various forms of strenuous practical work. He has an uneasy feeling at the back of his mind that something is required to replace the vanished system of apprenticeship, and therefore, forgetting his demand for concentration on the three "R's," he asks for a vocational bias to be given to elementary-school work, especially on its practical side,

even though he knows that this must necessitate less time being spent on literary work. The highbrow educationist is immediately up in arms. He has an innate and not unnatural objection to using the Elementary Schools as training grounds for any one particular occupation, and therefore illogically opposes the introduction of any vocational bias into the schools, however useful it might be educationally. He fears the development of a one-way-traffic mind, and imagines that education with even a slight vocational bias would produce such a mind. But is there any evidence that it would or could?

There are three kinds of vocational education that are often asked for: the Agricultural, the Commercial, and the Domestic.

Consider first the Agricultural. This naturally involves a course of study which makes use of the environmental conditions of the school. Even if the bias affected the curriculum of the school from the lowest infants' class upwards, would it produce the one-track mind and fetter the child to the farm? It is extremely improbable that it would have anything like these feared results. The child would receive an excellent all-round education, one that would interest him and fit him to take his place in life, wherever his lot may take him. His instruction would be based on the usual educational principles of working from the known to the unknown—and there is plenty of unknown in the countryside to exercise the minds and the curiosity of both teacher and taught. Study of plants and animals trains the powers of observation and encourages patience and concentration and teaches Hygiene and Physiology in a practical way. Arithmetic gets many excellent exercises from the buying and selling of agricultural produce. The keeping of records helps composition and necessitates legibility. Physics and Chemistry come in with the use and care of machinery and in the application of artificial manures. No farmer can nowadays afford to ignore Economics and the Geography and History of modern times, since his very livelihood may

depend on the politics of other countries. All these subjects must form part of the curriculum in an education with an agricultural bias. A child brought up in such an environment receives just as good a preparation for life as does a pupil in an urban school, where any sort of bias is anathema. He should have as good a chance of making a success of his life and of enjoying it.

A commercial bias does not tie a child to an office desk or place him at a disadvantage if he finally takes up a post of a non-clerical type. The commercial dye does not rot the whole fabric of his education. His English is no worse because he sometimes uses a typewriter. In fact, his spelling and punctuation will be much better, since errors in typescript show up so much more clearly. He must listen and pronounce carefully if he is to make a success of his shorthand. Commercial English is an abomination, but then this should never be used in a commercial course, and it is to be hoped that it will not much longer persist in commercial circles. His Arithmetic will be no worse because it has an obvious object in view. A careless initial error in a book-keeping exercise, which has ruined his whole morning's work, will make him more and not less careful in the future. His History and Geography will be no less valuable educationally because it applies to present-day problems. Physical Culture, Hygiene, and Physiology are as important in commerce as elsewhere. The factory surgeon pays special attention to sanitation and ventilation, and the Shops Acts require the distributive trades to make the working conditions of their staffs conducive to the maintenance of health. These subjects, therefore, naturally form part of a course with a commercial bias. There is no reason, either, why Handicraft for boys and Home Crafts for girls should not be comprised in a commercial course.

On Domestic Science an excellent general education can be quite satisfactorily based. Such a course does not involve concentration on the attainment of mere manual skill in the Home Crafts. It can and should comprise all

subjects that are requisite for a good all-round education, even if they are made to have in their treatment a direct relationship to the running of a home. The Arithmetic, never before a popular subject with girls, becomes interesting, and not less valuable in the training of the reasoning and calculating powers, when based on matters she has to deal with every day of her life. Her Geography, when specially concerned with food supplies, enlarges her view of the world. Economic History cannot be taken without reference to the habits and customs of people living in countries other than her own. Art does not become debased when it is applied to the decoration and furnishing of the home and to her dress. Science, with its application to health and Home Crafts, does not lose any of its educational value because it is made to aid in the solution of problems met with in the daily life of the home. Home Crafts themselves are not mere trainers of memory and manual skill. They can do much to foster habits of concentration, observation, accuracy, and, above all, common sense. Physical Culture and Music are as essential in a Home Crafts course as in any other, if not more so. Ill health, when it arises, is the troubler of the home, and hence home-makers should learn, if possible, how to avoid it.

Bias makes school work more alive and more interesting, more easy of absorption and digestion. Vocational bias need not be feared, provided that the instruction is not too much of the rule-of-thumb order. Unfortunately, there has been too much of this in the past, especially in the teaching of the crafts. This has partly been due to the fact that many of the instructors and some of the instructresses had not been trained as teachers. They taught how certain operations should be performed, but they did not trouble to explain why the process employed was selected. They saw to it that their pupils became skilled in the manual operations by constant repetition. They considered that this attainment of manual skill was the be-all and end-all of their instruction.

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There must be in any instruction a certain amount of repetition to attain the desired end, but the reason for it should be made clear to the pupil. It seems mere useless drudgery otherwise, and drudgery is seldom attractive to the young.

It is, of course, possible that a pronounced bias might direct the thoughts of the pupil towards one particular occupation. This is no doubt the idea underlying certain courses, such as those given in Junior Commercial and Junior Technical Schools, but there is no great objection to this, so long as the training given can be applied in some other occupation, if opportunity offers. If engineering is the staple industry of the district, an engineering bias might well be given to the school work. It should not, however, be so specialised as to tie down the pupils to the one industry, and it does show that school work has some relationship to life outside the school walls, and that it is not designed merely to keep the pupils out of mischief and to provide occupation for their teachers. Pupils have no apparent innate objection to a biased education. They generally prefer it. They like doing something really useful. Beating the air leaves them cold.

The two practical subjects, Woodwork and Domestic Science, were confessedly introduced into the Public Elementary Schools as useful crafts and not for their educational value. The object of the woodwork was the production of craftsmen, and the instruction was directed towards that end. Instruction by trial and error was considered too slow and quite unnecessary. This method was not used in the workshops, and the ex-craftsmen instructors saw no reason to use any other method than that under which they had been trained themselves. Rule-of-thumb methods were considered to fill the bill in those uninstructed days.

Cookery was not much better taught. The underlying principles received little or no attention, partly because the teachers knew nothing about them and partly because they considered that the time could not be spared

for them. What was required was the preparation of food, both digestible and pleasing to the taste and eye. It was thought then that direct instruction in method was the best way of getting the desired result. Memory would enable the pupils to repeat what they had done in exactly the same way as they had been taught to do it in school.

The two subjects should not be condemned as educational media merely because they have been badly taught in the past. Fortunately a change is slowly coming into the methods of instruction, and far more attention is being paid to the underlying principles, since their educational value is becoming recognised. But already complaints are being heard that the pupils do not now possess the manual skill they used to show and attain. There is probably something in the complaint, but it must now be borne in mind that the object of the instruction is not the production of the complete cook and the journey-man carpenter, but a pupil interested in the work, knowing the whys and wherefores of what has been done and willing to study independently further after schooldays are over. It is, of course, unfortunate that employers do not understand the educational object aimed at in teaching a craft in a senior school and that they are consequently inclined to expect too much. They expect the finished building and do not give much thought to the necessity for laying the foundations firm and true. What they should ask for and expect to get is a firm and well-laid foundation on which they can build, and that they will get from the modern and improved methods of teaching crafts.



## The Multiple Bias School

OFFICIAL approval and encouragement have been given in past years and are still being given to the establishment of Junior Commercial and Junior Technical Schools, in which partial specialisation takes place at rather too early an age, but nevertheless their numbers are small and show little sign of increasing. There are many reasons for their lack of popularity. Some of these have been referred to earlier in this book.

In reorganised districts—and all districts will be reorganised some time—the pupils, who join these schools at thirteen years of age, must have been for a year or two in a Senior School, since pupils join Senior Schools at the age of eleven years. By the age of thirteen years they have got used to the ways of the Senior School and are not eager to make another move. Moreover, the head teachers of the Senior Schools are human enough not to wish to part with their best pupils, and those pupils they are willing to give away would be Greek Gifts to anyone and certainly unable to do the work of the Junior Commercial and Junior Technical Schools to the satisfaction of themselves and of their teachers, if they were transferred to them from their Senior Schools.

Also at the age of thirteen years, employment, with its cash rewards, looks very near in the pupil's eyes, and an extra year of schooling does not appear too attractive, especially if it has to be spent in a school of which little definite is known by Senior School pupils. As already stated, there is in the minds of both pupils and parents a fear that the occupation, towards which the specialised form of training is to be directed, may not be available when the course is completed and the age of fifteen years is reached.

When the age of entry is lowered to eleven years, another objection rises in the minds of the parents, namely, that

there is an off-chance that the pupil may find after a year or two in the specialised school that its peculiar form of instruction does not suit him or answer his probable future requirements, and that, if so, it will not be too easy to obtain at that comparatively late age a transfer to a school with a more suitable curriculum. In any case such a transfer would necessitate making new friends in his new school, not always an easy process. Unfortunately transfers of clever pupils on the grounds of the unsuitability of the curriculum are practically unknown. Good pupils are never given away, and the crocks are desired by none.

Whatever highbrow educationists may say about the undesirability of a vocational bias, the kind of instruction offered by Junior Commercial and Junior Technical Schools, or something like it, will be desired by many pupils, and it should be provided for them if they can profit by it. The Senior Schools can be made to fill the bill without much extra expense being necessary. For this purpose it is advisable that the Senior Schools should be large enough to have in each year three or four class entries and be able to run parallel courses. Their planning and equipment are such as to make it easy for them to run courses with a Commercial, an Art, and an Industrial bias. These courses should not be of the ultra-specialised kind which is peculiar to the Junior Technical and Junior Commercial Schools. The bias should be more marked in the last year and especially in the last term of that year. This will be facilitated by the fact that in the last year and in its last term the numbers in its classes will be much smaller than the normal, and individual work will be much easier to arrange. A pronounced bias in the last year often results in a voluntary extension of the school life.

The great advantage of a multiple bias school is that a change from one "side" to another, when unsuitability becomes apparent, does not demand unnatural self-denial on the part of the head teacher or cause a mental

upset in the pupil such as might arise from a transfer from one school to another as an apparent failure. The success of a multiple bias school is dependent on the head teacher possessing a multiple bias mind. He must not be convinced that any one particular course of instruction is the best for all his cleverest pupils and that the other courses will do quite well for those who do not shine mentally. There has been too much of that frame of mind in the Secondary Schools in the past, and it ought not to be allowed to infect the Senior Schools.

A Senior School, equipped with rooms for practical instruction in Science and Arts and Crafts for all its pupils, and with rooms for Home Crafts for girls and for wood- and metal-work for boys, has ample opportunity for the development of "sides" each with a different bias, without being compelled to give its pupils a one-sided education throughout their whole school life. A multiple-bias school does not expect that each of its pupils will, when he leaves school, get just the kind of occupation he likes best and for which he has been partially trained, but it does expect that its pupils will be adaptable and will settle down cheerfully to make a success of whatever work they are called upon to tackle. No complaints of square pegs in round holes will be applied to its pupils. Their varied experience in school will have shown them that difficulties, inherent in any task, can be resolved by patience, perseverance, and common sense, and that their minds are not of the one-way-traffic kind.

It will not, of course, be possible in the smaller Senior Schools to have entirely separate classes of forty pupils in each of the various sides, and it should not be necessary to try to arrange such a system even in the largest schools. In the first two years the course of study for all pupils will be almost the same. The special "sides" will be developed in the last two years, when individual work becomes more possible and easier to arrange. Then the classes can each contain two or more "sides." Those who have not tried it may be deterred by the apparent

difficulty, but they may be comforted by the knowledge that the system has been carried through elsewhere with complete success and to the satisfaction of the three "P's," parents, pupils, and pedagogues. It does necessitate individual work, but this is essential in all Senior Schools if their pupils are to be properly prepared to work independently of their teachers when schooldays are over.

There has been some discussion lately as to whether it would be advisable to start what are called multi-lateral schools, by which is apparently meant a school which would contain a Secondary School section from which the pupils would leave after the age of sixteen and a Senior School section from which the pupils would leave at the end of the terms in which their fifteenth birthdays fell. Presumably such a school would resemble the selective Central Schools in the County Borough of Blackburn, except that a much greater proportion of the pupils would be in the Secondary School section. Such a school has one advantage, that it makes possible and much easier the transfer of a pupil from the Senior Section to the Secondary Section at the age of thirteen or fourteen years, but it is very probable that it would also result in the course of instruction in the first three years in the two sections becoming identical, and this is not to be commended. If any such experiment receives official sanction, the number of such schools should be strictly limited, and careful watch should be kept on their development.

It will be interesting to see whether or not the early leaving of part of the school, at fifteen years of age, will infect those who should stay in the Secondary School section to a much later age with a desire also to go off to employment in the commercial or industrial world. A similar difficulty has been experienced in "mixed" Secondary Schools, when girls have left before the prescribed age. Their unauthorised leaving has been followed by that of a number of the boys, in spite of the penalty clause in their respective agreements.

## The Staffing of Senior Schools

THE staffing of large Senior Schools presents difficulties due to the reduction in the numbers of their pupils at the end of each of their four terms. This reduction in numbers on the school rolls is often accompanied by an official request for a corresponding reduction in the number of assistant teachers serving in the schools.

Teachers' organisations have, from time to time, requested that the staffs shall remain unaltered throughout the year, notwithstanding these periodic falls in the numbers on the rolls, just as they do in Secondary Schools. The conditions in Secondary Schools are very different from those in Senior Schools. In the Secondary Schools the pupils leave as a rule only at the end of the school year. Departures at any other time are severely frowned upon and consequently are very few in number. Those that do occur outside the appointed dates are generally due to changes in residences of parents and do not affect specially the numbers in the higher forms of the school or indeed the number in any particular form. The number on the rolls therefore remains practically unaltered throughout the whole of the school year, and there is no necessity even to consider a reduction in the number of assistant teachers serving in the school.

Conditions are very different in the Senior Schools. As a rule in these schools the pupils leave at the end of the term in which their fourteenth birthdays fall, and presumably they will continue to do so after the 1st September 1939, if they are successful in obtaining beneficial employment, that is, unless their parents have a change of heart. A Senior School will normally receive at the beginning of the school year as many pupils as it will lose during the school year unless its number are increasing or decreasing.

A Senior School, with accommodation for twelve classes

### *The Staffing of Senior Schools*

each of forty pupils, will receive at the beginning of the school year approximately one hundred and sixty pupils, i.e. four first-year classes of forty pupils each, and will lose during the school year the same number drawn mainly or entirely from the third-year classes. These will leave, say, thirty-five at the end of the first term, about the end of October, thirty-five at the end of the Christmas term, forty-five at Easter, and the remainder at the end of the summer term. If the number on the rolls at the beginning of the school year was four hundred and eighty, there will be left at the beginning of the Christmas term approximately four hundred and forty-five (445), at the beginning of the Spring term four hundred and ten (410), and at the beginning of the Summer term only three hundred and sixty-five (365). Therefore, taking it that the leavers were all in the top four classes, these classes would be reduced from one hundred and sixty (160), their total number at the beginning of the school year, to 125 at the beginning of the Christmas term, an average of 31 per class, to 90 at the beginning of the Spring term, an average of 22 per class, to 45 at the beginning of the Summer term, an average of 11 per class. It is hardly likely that the Board of Education or the Local Education Authority would be content to leave the staff unaltered when the numbers in the top classes are showing such marked reductions at the end of each of the first three terms.

Of course, if reductions in the staff are insisted upon, they should not be so drastic as to necessitate teaching in one class pupils widely differing in ability and capacity in their last and most important year at school. The remnants of the "A," "B," "C," and "D" classes should not be thrown together, since this would cause the "A" and "B" pupils to go too slowly and the "C" and "D" pupils practically to mark time in despair of making any progress at all. One obvious result of this admixture would be to induce the third-year pupils, so treated, to leave school at the earliest permitted moment,

## *Education up to Fifteen Years*

and their last thoughts of their school would not be the most pleasant.

Where the school contains four forms, each with a different bias, but consisting of pupils fairly equal in ability, the amalgamation of the four classes into one or two would probably not have any serious or deleterious results. There would naturally have to be far more individual and independent work and less class instruction, which is all to the good, as it gives the pupils a foretaste of what they will meet when they leave school.

It is extremely unlikely that the Board of Education and the Local Education Authorities will accede to the request of the teachers' organisations for an unaltered staff throughout the year in these days of educational economy, at any rate so long as the pupils claim and exercise their legal right to leave school as soon as they have passed the age for compulsory attendance. Reductions therefore will continue to be made in the staffs of large Senior Schools during the course of the school year. A staff which could economically be left unaltered throughout the whole of the school year would be much too small for the number on the rolls during the first two terms. There would be an irresistible temptation to put far too many pupils in the "leavers" classes during the first two terms and to trust to those classes being rapidly depleted. This would certainly not encourage any voluntary extension of the school life. It would be very effective in tempting the pupils in these over-sized classes to search for beneficial employment and to take it as soon as they were legally permitted to do so. In any case the depletion of the top classes through pupils leaving on becoming exempt would make it necessary to reorganise the whole school at the beginning of the Easter and the Summer terms, when the numbers in the top forms would be so extremely low.

If reductions of staff must be faced, the best way of overcoming the inherent difficulty is to appoint a nucleus staff which will remain unaltered throughout the school

year. This would consist of specialists in charge of the various subjects, both literary and practical. A number of general practitioners would be added at the beginning of the school year, and these would be transferred as occasion made necessary to Junior Schools to fill vacancies therein or be used for filling casual vacancies in the Senior Schools. These general practitioners would finally either become permanent members of the Junior Schools' staffs or be appointed on the permanent staffs of the Senior Schools as specialists in their various subjects. Teachers with such varied experience of the work in both Junior and Senior Schools become valued members of the staffs of the schools to which they are respectively and finally appointed. They have learnt in their sojourn in the two classes of schools the necessity for continuity in schemes of work. They will always, therefore, take good care that their teaching shall have the appropriate relationship to that of the other teachers on the staffs of their respective schools. Experience teaches quite a lot.

In those districts where six monthly transfers to Senior Schools from the Junior Schools are the rule, the question of reductions in Senior School staffs may not arise. It is a moot point whether or not this cure is not much worse than the disease. It necessitates reorganisation of the three classes of schools every six months, and it certainly tends to cause transfers to be made from Infants' Schools to Junior Schools too early in the children's life. The six monthly transfers are usually, if not always, carried out from reasons of economy and not on educational grounds.

## Planning of Senior Schools and their Equipment

IN the past the most important consideration in the planning of a Public Elementary School seems to have been the external appearance of the building. Its suitability for teaching purposes came in a bad second and certainly did not enter too obtrusively into the picture. Schools were built in close juxtaposition to main arteries of traffic, presumably in order that the many passers-by might have a good opportunity of admiring the architect's creation. Why the playground was not put in the front to give the onlookers a better chance of looking at it without getting a crick in the back of their necks is difficult to understand. Possibly the schools were looked upon as work-houses, and it would not have done for people actually to see that their pupils did play sometimes.

Even in days long gone by there was traffic on the roads, not so much as in the present days, but quite enough to cause occasional interruption to the teaching in the rooms adjoining the roadway. Nowadays the unfortunate position of the school, on the street, not only causes constant annoyance to both teacher and taught but also adds a new and ever-present danger to the life of the pupil. Safety First is, of course, taught every day in the schools and some degree of carefulness arises from it, but though it is easy to be careful sometimes, it is difficult to be careful all the time. The roadside position is of no advantage to the pupil. He would find the school easily enough if it were, as it should be, set back from the roadway. Schools are still being built flush with the street, even when there is a constant flow of dense traffic past its walls. Will architects and Local Education Authorities ever learn wisdom?

For display purposes, if for no other reason, the school

had in the past to face the street or roadway, and this very often necessitated a north or north-eastern aspect for the teaching-rooms, and a consequent impossibility of a visit from the sun's rays to cheer the bored pupils in their drudgery. Possibly this was not considered a disadvantage, since both school architects and Education Authorities had not then, if they have now, shed the opinion of their forefathers that "sunlight gives you the vapours." Whether they were all of this opinion or not, they certainly did everything they could to keep the sunlight out of the classrooms. Where the aspect had to be south-east owing to the position of the site, the corridors were placed on the south-eastern side of the school in front of the classrooms, so that the main light entered the classrooms from the north-west. If a hall was, in a moment of generosity, provided, generally for religious purposes probably, it was placed on the sunny side and again the classrooms were built in the shade behind it. The position of the hall no doubt improved the façade and made the classrooms less disturbed by the traffic on the roads, but it caused them to be sunless and consequently more cheerless than they need have been. If a hall and corridors were considered useless luxuries, then obscure glass was found to answer the desired purpose excellently. It not only kept out the disturbing rays of the sun and so saved the expense of sunblinds, but it was supposed to ensure concentration on school tasks by removing all possibility of the pupils' attention straying during their lessons to objects and actions outside the school walls. Even if the infrequent windows had been glazed with clear glass, little could have been seen through them except the sky, since the windows were placed high up and well above the pupils' heads. The sky itself was generally out of bounds, in spite of the fact that most schools were erected by religious bodies, since the skylights as well as the windows were filled with obscure glass. Yet people in those days were strong on proverbs and knew that "you can take a horse to water but you

can't make him drink." The schools might be in their external appearance a hybrid between a church and a prison, and the classrooms might have all the characteristics of a prison cell, but the thoughts of the pupils could not be confined to their uninteresting school tasks, to the maps and diagrams on the grimy walls, and to the chalk on the blackboards. They would still stray at times to happier scenes and sounds. Fresh air was as thoroughly excluded as the sun's rays. There were a few small hoppers high up in the windows, and sometimes ineffective Tobin Tubes and Sheringham Valves in the walls. The hoppers had as a rule broken cords, and the lids of the Sheringham Valves were generally kept down. The Tobin Tubes could easily be closed with a fair-sized book. Ventilation was not encouraged, since it cooled the air and necessitated extra expenditure on fuel. Even in modern buildings the same defects are still found. They certainly have more window space and there are more hoppers in the windows, but the hoppers are generally arranged so as to direct a cold current of air on to the heads of the pupils and thus to invite their rapid closure.

Modern authorities on Design are rightly insistent on school buildings being beautiful, but they generally use their best efforts to ensure that the beauty shall be in accordance with their modernistic ideas. They are too much inclined to put architectural beauty first and the suitability of the building for its special purpose a very bad second. They would paint the classroom walls and the furniture all the colours of the rainbow, in order, as they say, to provide variety and to do away with the institutional atmosphere, but they do not seem to care overmuch if their ornate and futurist designs have a disturbing effect on the minds of the pupils or if the dark colours they advocate and admire reduce the natural illumination of the rooms and necessitate additional artificial lighting. School architects are still too much in favour of wide expanses of brickwork and have not yet appreciated that the most suitable and healthy position

for a class under instruction is in the open air, provided, of course, that the temperature is kept high enough and that there is protection from inclement weather. Even educationists are tarred with the same brush. They are afraid of fresh air and in love with high temperatures, except, curiously enough, for weakly and delicate children. They build open-air schools for physically defective children and keep such children out in the open air all day in all the seasons of the year, presumably that they may be made strong enough to withstand the ill effects on their health of the stuffy and overheated atmosphere of the normal classroom to which they will have to return when their stay in the open-air school is up. The normal school is so constructed as to ensure a constant supply of pupils to the open-air recovery schools. Educationists, and their medical advisers, do not seem to appreciate that what is effective in restoring health to delicate children must be good for the healthy, and that it will ensure in them the continuance of good health when they are later exposed to conditions conducive to illness.

School buildings should be suitable for their various purposes, and this fact should be gently but firmly impressed on the minds of all school architects. They can plan beautiful buildings that are in every way suitable to their uses. They can now even plan a house which will answer the purposes of a home and which will successfully pass the criticism of a housewife. They can plan beautiful factories and workshops which are fit for human beings to work in and which will still answer all the needs of high-speed industry. They could more easily plan beautiful schools in every way suitable for their various purposes if they could forget their own school-days and cease to idealise the conditions under which they themselves were taught. It is, of course, hard to break away from tradition, with its worship of dim religious light, its warmth, and its awful stuffiness.

The fancied dangers of fresh air, both in the day and in the night, overawe the thoughts and actions of most

people, and it seems almost impossible to get into the minds of educationists and their architects that the conditions found best for the physically defective children should also be the best for the healthy child. They need not fear that the children will become too healthy. Their health will receive many rude trials when they pass out to industry, and therefore they should have every chance possible of getting as good a store of strength in their constitutions before they leave school.

Educationists should bear in mind in planning their new schools for senior pupils or in adapting old schools for the purpose of advanced instruction, that senior pupils are entitled to three or four years of healthy conditions before they pass out to commerce and industry with all their worries and long hours of work. The pupils should have the chance of breathing pure air during their twenty-seven and a half hours in school each week and of bathing such of their skin as is not covered with clothing in the not too frequent sunshine that falls intermittently on this country.

Their classrooms should be of the open-air type with french windows on the south or south-eastern side at least. Architects are apparently afraid of french windows, and they prefer to erect what they call a protecting wall about two and a half feet high and put casement windows of some sort above it. They imagine that such a dwarf wall protects the feet from draughts, but do not appreciate that cold winds blowing on the upper part of the body and avoiding the lower part are much more uncomfortable than the same breezes when they bathe the whole of the body. Where there are french windows on the sunny side of the school, it may be necessary to provide sunblinds for occasional use when the sun is strong, but it is not advisable to put the corridors on that side even if they are, as they should be, glass-roofed, since they certainly block out some of the rays of the sun and also provide an excuse for the closure of the french windows when the weather is quite warm enough for them to be

kept open. The french windows project somewhat into the corridors even when folded back flush with the walls and are then looked upon as an obstruction.

There are few days in the Southern, Western, and Midland Counties when the temperature is so low as to necessitate the closure of the french windows. Usually the cause of their closure is the action of the south wind in removing the papers from the desks, and not the onset of a low temperature. Even in the Northern counties french windows are kept open all day and every day throughout the year in open-air schools for delicate children, and so presumably they could be kept open in the schools for normal children.

French windows, closed or open, are said by the inexperienced to tempt the thoughts of the pupils to stray. Possibly they do at times, since thoughts, like human beings, are apt to err. In any case, it would be too much to expect pupils to concentrate on their school tasks during each and all of the 27½ hours of the school week. Their thoughts will stray at times, but they should not be tempted to do so unduly, and therefore it is not advisable to put the playground on the southern side of the school just outside the main windows. It is best to reserve that side for the gardens. Even when a playground is placed there, it is extraordinary how soon the pupils get used to apparent distraction such as Physical Instruction lessons in the playground, and refuse to be distracted from their work by the voice of the instructor and the movements of his pupils.

End classrooms can well have french windows on two sides, as in the photograph in the illustration section, between pages 80 and 81. A large glass-roofed verandah over the two open sides increases the cheerfulness of the room and makes it especially suitable for a backward "C" or "D" class, which requires all the help that environment can offer to overcome the drawbacks transmitted to its members by heredity or malnutrition.

Unfortunately closed corridors with solid tops are used wherever there is the slightest excuse for their existence.

They are generally cold, dismal, and draughty, and require to be artificially heated if they are to be bearable, but they have been the rule in the past and presumably they will continue for that reason to be put up in the future. When schools are built on the quadrangular plan, there can be no excuse for putting up closed corridors on its inner sides. Open glass-roofed corridors are far more cheerful and fully answer all the purposes expected from a corridor, and they have the added advantage that they are cheaper to construct than are closed corridors. In quadrangles there is no risk of winds driving snow and rain through the open corridors and under the doors into the classrooms. The rooms around the four sides of the quadrangle act as windshields. There is no convincing evidence that "the contrast of temperatures between the warmed classroom and a verandah open to every condition of the weather is attended with chills when children and teachers are constantly passing from one room to another," whatever the building experts of the Board of Education may say. Experience in the City of Nottingham, where the corridors in all new schools are open and glass-roofed, does not support the idea that chills are so caused. If it had, there would not have been so many closed corridors removed in the old dark and dismal schools in that City. It may be advanced that in that City the conditions are abnormal, since the french windows of the classrooms in the City's schools are generally wide open, whatever the weather, and that therefore there is not so much contrast between the temperature in the classroom and that in the corridor as is usual in the stuffy schools elsewhere. This does not alter the fact that the Nottingham children do not get chills as expected. Actually in no school in Nottingham or elsewhere are "teachers and pupils constantly passing from one classroom to another." Pupils, of course, go to their lavatories. There is a mid-session break, and the pupils go home after school is over. It might be thought that there would be more risk of chills if pupils

went from a heated classroom through a heated corridor across an unheated playground to their lavatories, which, except in ultra-modern schools, do not adjoin the main school building, or when they go out to play or when they go home, in each case without putting on extra clothing, but actually chills do not result from such practices. As a rule, children do not put on extra clothing when they go home nor do they run all the way home to keep off chills. Boys generally have no extra clothing with them except a cap, and not always that, and yet it is the male sex that thinks it necessary to be overclothed even when taking active exercise such as hiking and cycling.

This fear of chill by transfer from an overheated classroom—and no classroom should be overheated—to cool fresh air outside seems to be based on the ideas of long-past generations, when overclothing was the rule, when even the mouth had to be protected with a muffler if a walk had to be taken in frosty weather, and when bedroom windows had to be kept hermetically sealed to keep out the cold night air, then considered so dangerous. Employees in factories often work in much higher temperatures than those customary in schools, and yet there is no evidence that they suffer from chills as a result of passing out from their workshops to the cooler air outside.

Closed corridors between school halls and their cloak-rooms and lavatories are advisable when the halls are used for social purposes in the evenings. The contrast between the temperature in the hall and that in open corridors would on cold nights be too great for the comfort, if not for the health, of those who are taking part in dancing and other forms of entertainment. High temperatures are always demanded in public meetings and in social gatherings, even when dancing and physical jerks form part of the programme.

#### CUPBOARDS

The position of cupboards in a classroom which has french windows all along one side presents difficulty.

## *Education up to Fifteen Years*

There is so little free space for these very necessary parts of the classroom furniture. They would be unsightly and also too much exposed to the weather if they were placed with their backs to the french windows, or even to low casement windows. They cannot be placed at either end of the classroom, since each of the two ends is covered with wall boards, black, green, yellow, or grey, and baize panels. Low cupboards under the wall boards are out of place in a Senior School, and in any case would be difficult to get at there. It is best to build them in the wall opposite to the french windows, that is, on the side between the classroom and the corridor. The backs will project a little into the corridor but not enough to cause a real obstruction.

### FURNITURE

Chairs and dual tables with flat, not sloping, tops are wisely ousting the traditional though uncomfortable desk. As practically every classroom in a Senior School is now a special subject room, equipped for History, Geography, Music, or some other subject, and receives in each of the daily sessions three or four different classes in succession, it is impossible to allow individual pupils to store their books, rulers, pens, etc., in lockers in any one classroom. Such storage accommodation as is required for the pupils' materials is best provided in locker rooms. A shelf under the desk or dual table-top in the classroom will suffice for temporary storage of books, etc., brought into the room for use in the lesson to be given there. Lockers in the hall or in the corridors are unsightly, and are constant sources of annoyance to both teachers and pupils.

### THE CENTRAL HALL

The Central Hall, centrally situated, is a legacy from the past, which unfortunately still influences the planning of new schools. The hall is the natural centre, around which the social activities of the school revolve. That is as it should be, but it does not make it necessary or

### *Planning of Senior Schools and their Equipment*

advisable to put it in the middle of a solid block of buildings, buttressed up on three or four of its sides with classrooms and cloakrooms. In such a position it is easy to get at from all parts of the school, but approach is not the only thing to be considered. The hall has, of course, to be used for school assembly and dismissal, but it has also other functions to perform. As a rule it is the most convenient place for giving instruction in Music and in Physical Culture, when there is no gymnasium, but unfortunately its use for these purposes disturbs the work in all the neighbouring classrooms, when they are separated from it only by fixed or movable glass partitions which are far from soundproof. Movable partitions are worse in this respect than fixed partitions, but they are generally put up to give opportunity to increase the size of the hall when it is required for public gatherings. Glass partitions are necessary to admit "borrowed light" to both hall and classrooms. Unfortunately they can't admit fresh air even if they contain hoppers, since natural cross ventilation, without a hurricane, will not act through so wide a space. Strong winds are not welcome in classrooms and therefore both hall and classrooms are badly ventilated.

Architects have lately come to realise that halls should not actually adjoin classrooms, but they are still too prone to imagine that a corridor is a sufficient separation. Such corridors, especially in a two-storied building, are either dark and stuffy or dark and draughty, and they generally affect adversely the ventilation of the building.

In T-shaped buildings where the hall forms the leg of the T and the classrooms the horizontal bar, the corridor has other disadvantages in addition to being draughty. It is generally the only approach to the hall and this makes it difficult to use the hall for social purposes in the evenings. It is far more convenient if there is direct entry to the hall from one of the surrounding streets. It is not necessary then to pass through the unlighted playground and through the school corridor to get into the hall.

## *Education up to Fifteen Years*

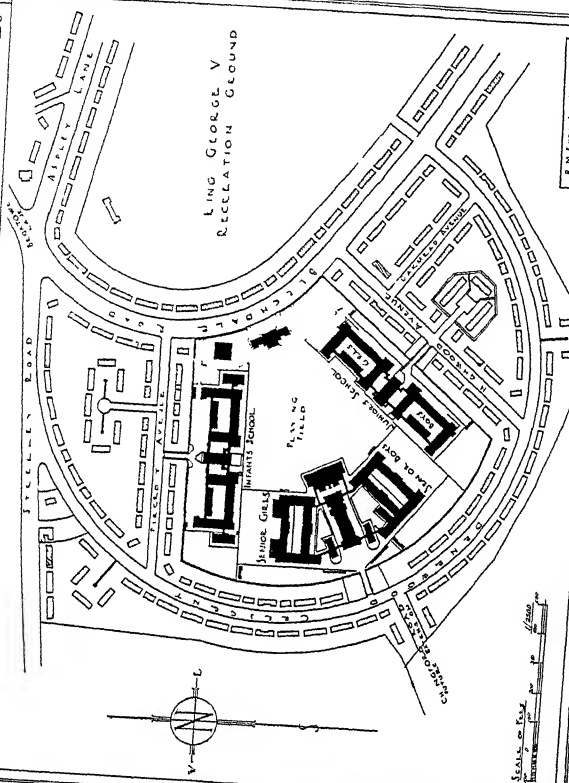
In quadrangular schools where the hall divides the quadrangle into two, the hall has some of the disadvantages of the old-fashioned centrally situated hall. The sounds from the hall seem to prefer to escape from the quadrangle through the classrooms and in so doing disturb the work in the classrooms. The hall is not well placed for use in the evenings, as approach to it is through the corridors around the quadrangle.

A hall set a short distance from the teaching-rooms, but connected with them by means of a covered corridor and having direct entrance from a neighbouring street, can be used for the teaching of Music and Physical Culture, and also for indoor games, without interfering in any way with the other work of the school. It is also conveniently placed for use for social purposes in the evenings.

The great defect of the hall, wherever placed, is its small size. The size varies with the numbers the schools accommodate, but it is never large enough to take the numbers who wish to attend a school entertainment or even a school prize distribution. If parents are admitted, the majority of pupils must be excluded. This should not be, since it is their show and their hall. If all the pupils are admitted, parents must be excluded or their numbers limited, and those excluded don't like it. School Authorities are well aware of these difficulties, but considerations of expense forbid the erection of halls larger than the normal. They do not, however, make the most of their opportunities. They have at times to erect, close to one another, two senior schools, one for boys and one for girls, each with a hall. They usually build the two halls far from one another, when it would be possible to erect one large hall for the two departments and divide it transversely by a sound-proof folding partition.

Possibly the cost of the folding partition acts as a deterrent, but against this could be set the provision of one stage with its retiring rooms at one end of the large hall instead of a stage for each of the two halls. For school purposes, with proper co-operation between the

## BILBOROUGH SCHOOLS



## THE "PLAYER" SCHOOL



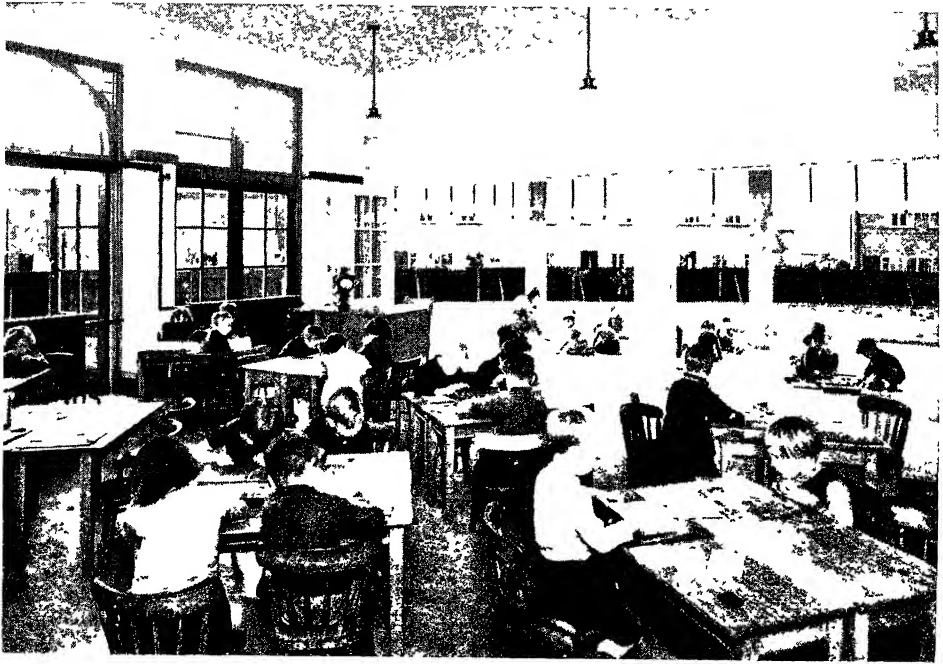


WINDOWS—NEW STYLE AND OLD

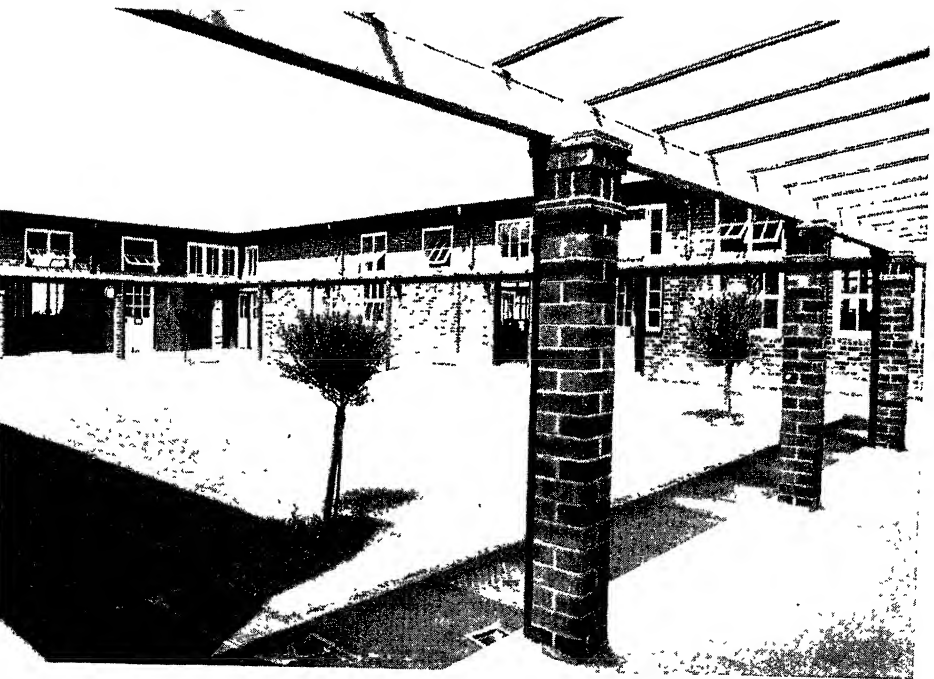


OPEN-AIR TYPE OF CLASSROOM





AN END CLASSROOM

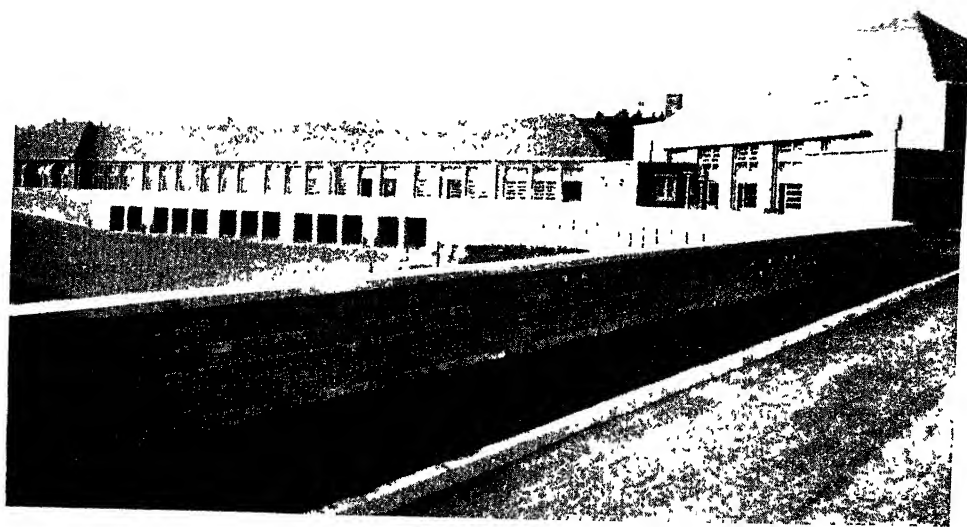


QUADRANGLE WITH GLASS-ROOFED CORRIDOR



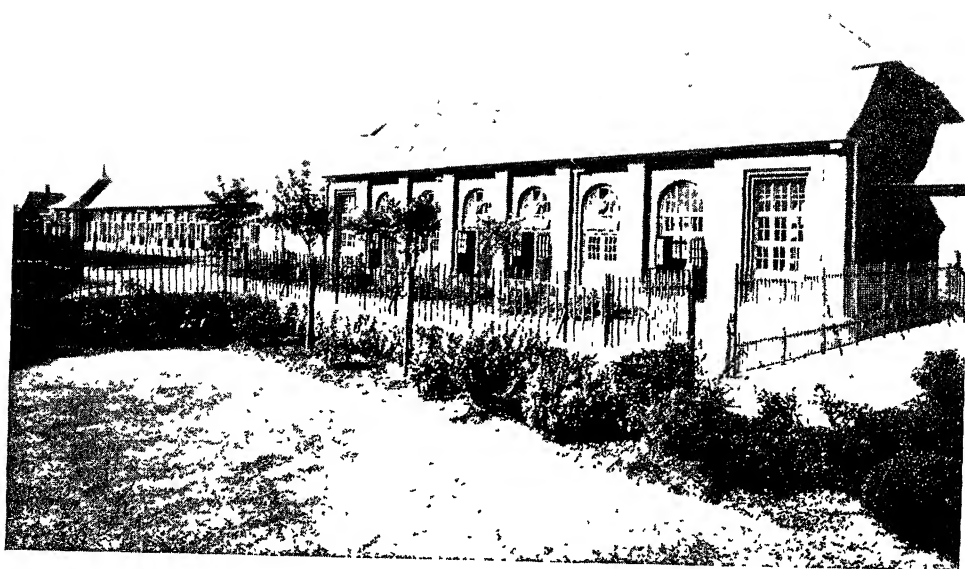


COTTESMORE GYMNASIUM—HALL, WITH SOUND-PROOF FOLDING PARTITION

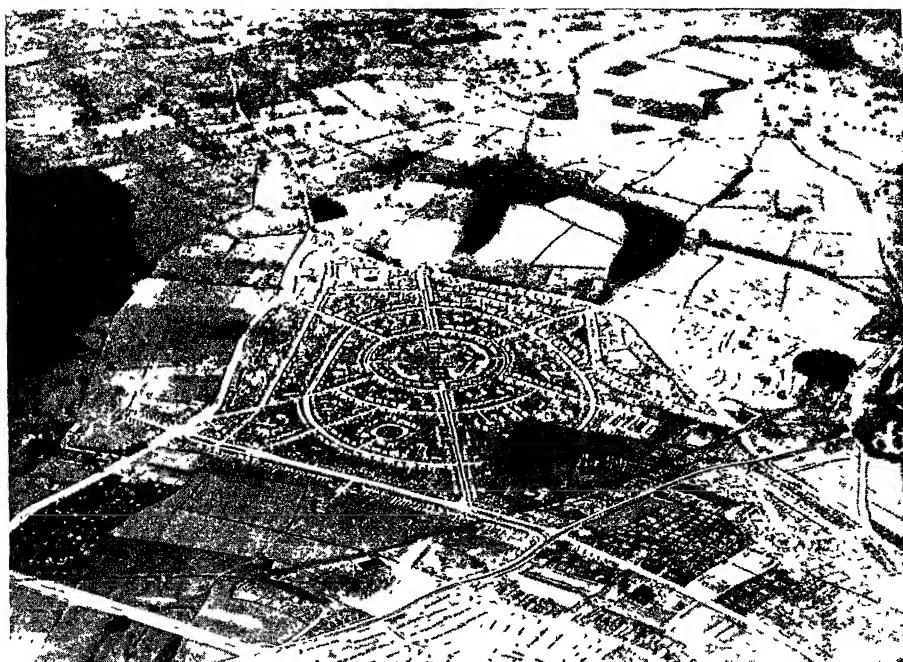


WALTER HALLS SCHOOL, WITH HALL AT ONE END

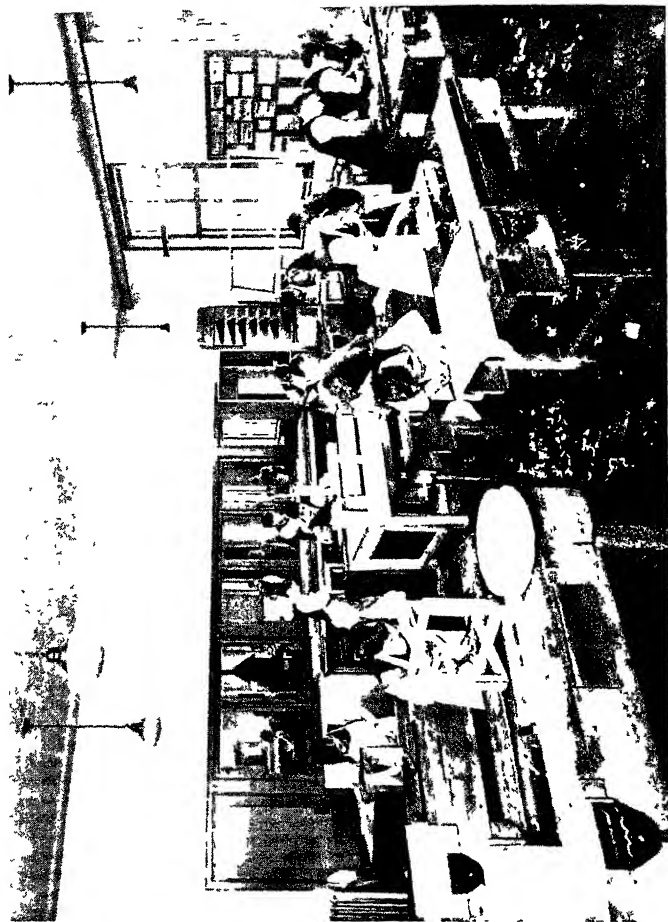




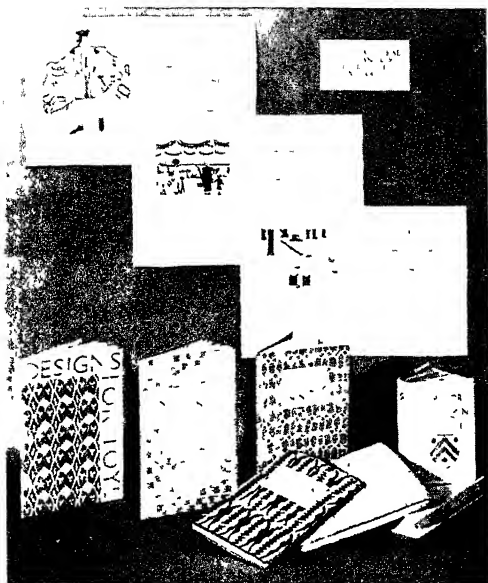
WHITEMOOR SCHOOL HALL, BETWEEN THE TWO DEPARTMENTS



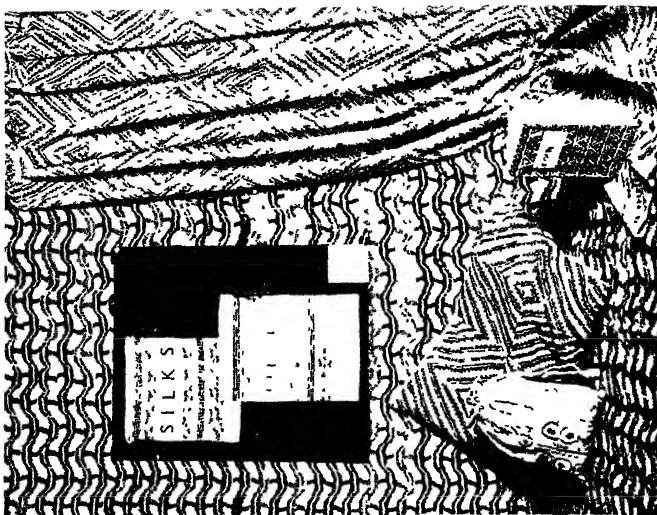
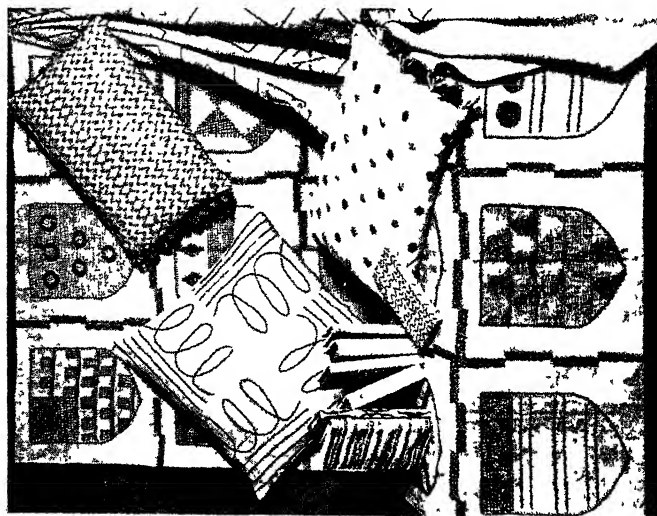
THE WILLIAM CRANE SCHOOL IN THE CENTRE OF THE ASPLEY HOUSING ESTATE



HANDICRAFT ROOMS, WITH SOUND-PROOF GLASS PARTITION



JUNIOR CRAFT WORK



JUNIOR CRAFT WORK

two departments, one stage will suffice, since it is possible to exchange halls when one of the two departments wishes to take in school hours work requiring the use of a stage. When school functions and social entertainments are to be held, the double-sized hall, with its partition back against the walls and the rails on which it slides removed, provides the necessary space for all who wish to be present. Such a hall forms an excellent community centre, especially when it has direct access from an adjoining street at the end opposite to that at which the stage is situated. It provides not only for the social requirements of the residents, but gives opportunity for the necessary and vital connection between the school and the home, which is so important to the life of a Senior School, whatever the school-leaving age may be.

Illustrations of the various types of halls are given between pages 80 and 81.

#### GYMNASIA

The present drive for National Physical Fitness will see to it that each new Senior School will be provided with a fully equipped gymnasium and its attendant changing-rooms and shower-baths, but it is to be hoped that they will be better planned than those of the past. Hitherto gymnasia have been confined to Secondary Schools. Senior Schools have had to make do with assembly halls, equipped with movable or fixed apparatus. Shower-baths and changing-rooms have seldom been thought of and gym-kit has not apparently been considered necessary. They cost money, and that probably was the reason for their absence. The future, it is hoped, will be happier in this respect. Fresh air during physical exercises, however, would have cost nothing, and yet its provision was not ensured. In fact, gymnasia seemed to have been designed to keep it out, as if it were as dangerous as night air is still thought to be by the general public. High blank walls on their four sides with small demi-lune windows up above the wall-bars no doubt provided the

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necessary space for the wall-bars and support for the joists carrying the ropes, but they did not invite the entry of fresh air or ensure the exit of the impure products of respiration. Dust and smuts from the outer air were denied access, but these, objectionable as they are, were less dangerous to health than the stuffy atmosphere of the unventilated gymnasium. Such an unsatisfactory gymnasium is illustrated in the Board's 1936 pamphlet on *Gymnasia*, page 33.

Slowly the cult of fresh air is affecting the planning of gymnasia, and french windows with hoppers above are at last making possible the teaching of Physical Culture under the proper hygienic conditions. Physical Culture taken in gymnasia with french windows open on both sides when the weather permits, and on the lee-side when winds are strong and the temperature low, will not only make the muscles strong and supple but will also ensure that the lungs shall have the chance of supplying air rich in oxygen to the labouring organs of the body. Wall-bars are as effectively fixed to the brick pillars between the french windows as to long expanses of blank walls. The pupils cannot fall out of the windows through the wall-bars, since the space between the bars is too narrow, whatever uninformed critics may say.

As school gymnasia will be required in the evenings for adolescents and adults, the dimensions should be not less than 70 feet by 40 feet. The ordinary size, 60 feet by 30 feet may be sufficient for children, but is too small for adults. Two changing-rooms, one on each side of the shower-baths, make it possible to use the gymnasium continuously, and avoids the risk of petty pilfering which sometimes occurs when one large changing-room is used simultaneously by two classes. Gymnasium kit, shorts and shoes for boys and one-piece suits and shoes for girls, are best kept suspended by clips to wheeled trolleys, each trolley being large enough to take the kit of one class. The trolleys can be stored in special drying-rooms and transferred to the changing-rooms as required.

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When the playing-fields adjoin the school, the gymnasium can well be attached to the pavilion. If there is no pavilion, there should be easy access from the playing-field to the gymnasium, so that its changing-rooms and its shower-baths shall be available for those engaged in practice games and matches.

### ACCOMMODATION FOR PRACTICAL INSTRUCTION

Rooms designed for practical instruction have all suffered in the past from one special defect: they were too small for their varied purposes. Economy, no doubt, first decided the size, and the methods of instruction had, perforce, to suit the dimensions rather than the requirements of the pupils. In domestic science, group work by the pupils instead of individual work, and in wood-work the making of small models of doubtful utility, were found to suit the cramped quarters. Demonstrations by the teachers continued to be used in science to an excessive extent, or half the class was kept transcribing notes, while the other half was allowed to perform "experiments."

Now teaching methods have changed, but unfortunately bricks and mortar do not change with them. Extra space is called for, but structural conditions in buildings already erected prevent expansion and expense forbids complete replacement. Rooms and instruction remain cramped and the pupils suffer. Experience tries to teach, but local education authorities and school architects turn deaf ears. The gap in age between secondary and elementary education narrows, but the difference between the respective dimensions of the practical rooms in the two classes of schools remains as wide as ever.

*Science Rooms.*—Science in the Senior Schools has suffered as much as any practical subject from its cramped quarters. Possibly this was due to the fact that it had in the past been taught solely by demonstration and that no great amount of extra space was required when pupils had merely to sit and listen passively to what the teacher said. Later, when practical work by the pupils was asked

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for, the rooms provided for it were made but little larger than a classroom for sixty pupils, and group work was the only thing possible, and this generally only for half a class at a time after full demonstration of the methods to be used had been given by the teacher. Now the official dimensions for a Science room for forty pupils are 900 to 960 square feet. This is far less than is rightly thought necessary for forty Secondary School pupils of the same size and age. It is not sufficient for dealing properly with all the branches of Applied Science which are now tackled in the science room of an up-to-date Senior School, untrammelled by the requirements of a University Examining Board. Space is there required for motor chassis and for machine parts, for a carpenter's bench, for incubators, Wardian cases, wormeries, aquaria, for the potting of bulbs and seedlings, etc. The more space there is, the more varied can be the schemes of instruction. One thousand and fifty (1,050) square feet is not an extravagant allowance for a class of forty pupils, and to make the most of this space the room should not be filled with benches and other furniture that cannot be moved. The only fixed furniture in the room should be the wall benches, the sinks, and perhaps the demonstration bench, if such a thing is considered by the Science specialist to be essential. Three sinks should suffice, of which one might be fixed to the demonstration bench, though one in the corner of the room near to the demonstration bench is more readily available to the pupils and not too far off for the demonstrator's use. The rest of the furniture may well consist of movable tables, five feet long by two to three and a half feet wide, with heights varying from two and three-quarter to three feet, each provided with two shallow drawers. Storage accommodation is best provided in a separate though adjoining room, large enough to act as a preparation room and as a temporary resting-place for apparatus to be used in an approaching lesson. Cupboards in Science rooms take up valuable space which can ill be spared and which can be used to better advan-

tage for other purposes. The erection of a storeroom costs something no doubt, but it is a real economy in the long run.

Biology is now beginning to take its proper place, and an important place, in the scheme of Science instruction in Senior Schools. It is an applied subject of direct practical utility and should not be made a mere classroom or a laboratory subject. Wherever possible, therefore, there should be provided, as supplements to the Science room, greenhouses, frames, and gardens as near as possible to the school premises, even if the school is in an industrial town without direct rural interest. They have been provided in the City of Nottingham and were originally provided in Walsall in 1906. Greenhouses and frames can be constructed by teamwork in the Handicraft rooms and erected by the senior boys. They will find the laying of the brick courses an excellent exercise in practical mathematics.

*Handicraft Rooms.*—Woodwork in the past among the practical subjects came off best as regards its accommodation, but that was probably from necessity and not from choice. Space had to be provided for the benches and for fairly wide gangways between them, and also some little storage for timber. So long as the instruction was confined to the making of small and generally useless models, such as pan stands and marble boards, there was little to complain of in the woodwork centres so far as accommodation was concerned, but now that the scope of the work has been greatly extended and metal-work has been added, much larger rooms are required and are generally provided. Even the Board of Education, which has never been extravagant in its ideas on accommodation, now recommends for a class of forty pupils a room of not less than fifteen hundred (1,500) square feet of floor space or two rooms each of not less than eight hundred and fifty (850) square feet. If the emphasis is laid on the words "not less than," little objection can be raised to their recommendation. The dimensions are sufficient so long

as the traditional methods of instruction persist and the work is confined to the making of small individual models. When machinery is introduced and construction by team-work on a large scale is undertaken, much more free floor space is called for. Benches, single or double, power-driven machinery, sawing benches, wall-racks, together with radiators and cupboards, take up so much space that there is no free floor space left on which to place what is being built up, such as greenhouses, garden frames, model stages for dramatic work or for puppetry, or pieces of home furniture, without crowding the benches too closely together for comfort or safety. It is not easy to get at a piece of work which is perched up on the top of work benches. It is easier, of course, to find or arrange for free floor space when a class of forty pupils is taught in one large room than when it is split up into two sections of twenty each and each section is taught in a room half the size of the large room. This is no doubt the reason why the total floor space for the two small rooms is seventeen hundred (1,700) square feet, i.e. two rooms each of eight hundred and fifty (850) square feet, while for one room for forty pupils the floor area is only fifteen hundred (1,500) square feet. An economical Local Education Authority would naturally prefer to provide one large room for forty pupils rather than two smaller rooms each for twenty pupils, since they would thus save expense, but other considerations have to be taken into account when a decision has to be taken as to whether two smaller rooms or one large room shall be erected. Accommodation has now to be provided for both wood- and metal-work, and there are practical objections to teaching these two subjects together in one room to a class of forty pupils. It is much easier to co-ordinate the work in the two branches if they are taught together in one room, but unfortunately when twenty pupils are working with metal and twenty with wood in the same room, the noise is so great that the teachers can hardly hear themselves speak. Oral instruction is out of the question without calling a

halt to the work going on. Moreover, some mental fatigue is caused to both the teachers and the pupils. When wood- and metal-work are taken, two rooms are generally preferred to one. They need not be separated by partitions which are impervious to both sound and light. The partition can be a double-glass one, since this is practically sound-proof and yet transmits light (see illustration). The pupils are not so completely cut off from one another as they would have been if the partition had been made of brick. There is the added advantage that the teacher on one side of the partition has the chance of seeing what pupils are doing in the room on the other side when their own teacher has his back to the rest of his class and is turned paying special attention to an individual engaged on a difficult piece of work.

Two storerooms are required for each of the two rooms, one for general stores and for work in progress and the other for raw materials. Most schools are deficient in general storage accommodation, but the worst and the greatest deficiency is usually in the Handicraft section. There the teaching space is generally cluttered up with pupils' unfinished work to the great annoyance of all concerned and to the hindrance of their work. The room for general stores should be large enough to accommodate the pupils' unfinished work. This takes up a great amount of space, especially when the pupils come in for instruction on one half-day only each week, as they still do too often. Then accommodation is required for the models of two hundred pupils, i.e. for twenty on each of the ten half-days in the school week. Incidentally, insufficient accommodation for pupils' unfinished work is a direct incentive to confining the woodwork instruction to the making of small models which may be satisfactory as exercises for the development of manual skill, but are otherwise useless when completed. The question of accommodation for storage is complicated when the rooms are used, as they often are, for evening classes. Students in Evening Classes generally wish to make furniture for their homes among

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other things. They do not finish their self-selected tasks in one evening or in one week, and they cannot be expected to take home each evening their partially completed work. Storage accommodation must be provided for it somewhere under cover and not too far off from the Handicraft rooms. Pupils in their last two years will be engaged in constructive work similar to that performed in Evening Classes, and their work must also be stored. All these difficulties have been known and experienced for years, but still schools are being planned and erected without any serious attempt to meet the requirements as regards storage accommodation. The storerooms are still mere cubby-holes and the teaching space put up at great expense cannot properly be used since so much of it is occupied with things that ought to be elsewhere.

The storeroom for timber should have access from the outside, and also easy entrance to the teaching-room for the timber in lengths. The timber has usually to go out from the storeroom by the way it came in, and then be pushed into the teaching-room through a window. It gets there in the end, but the process takes unnecessary time and is annoying to the participants. There is no great architectural difficulty to be overcome, but no one seems to think it worth while to bother about the question. The room is sometimes made less than fifteen feet long, and therefore the timber in lengths has to be stacked vertically instead of horizontally. A curve may be a thing of beauty, but a curve in timber does not increase its value for constructional purposes. What is even worse than a storage room too short is one with a hot-water pipe running through it and one with no ventilation. Evidently architects have so got used to steam-dried timber that they think a little extra heating won't do it any harm. Storage accommodation for metal-work does not present so many opportunities for errors as does the storage accommodation for wood, but still it has to be supplied. Quite apart from the fact that wood and

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metal don't form a good mixture in a storeroom, it is not advisable for two separate classes to have to fetch their materials from one and the same storeroom or to store their unfinished wood and metal-work in the same room. Divided authority is apt to lead to friction and is best avoided.

#### HOME CRAFTS

The Home Crafts as school subjects have not been fortunate in the past in respect of the accommodation officially prescribed for them. Much was evidently expected to be done in little space, and the closer the pupils were together the happier and the more industrious they were expected to be. Proximity was thought to ensure co-operation and to facilitate supervision. For a Cookery Centre a room with six hundred (600) square feet of floor space was taken to be large enough for eighteen girls, and senior girls at that. Pantries and storerooms were looked upon as luxuries—and luxuries were defined as things Elementary Schools were better without, and they were dispensed with. The back of the room was often encumbered with one or two rows of desks, which invited meticulous note-taking, but occupied floor-space which could ill be spared. The equipment was on a par with the floor area and was usually limited to that which would ordinarily be found in a labourer's cottage. Laundry-work, when it was later included in the subjects for which special grants would be paid, was given a room to itself, even smaller than that granted to its sister subject, Cookery. This was not a sign of special generosity, but was merely due to the fact that the Cookery Centre really could not be made to hold anything more than that which it had in it already. The combined Cookery and Laundry-work Centre came later when a more liberal policy permitted the erection of Centres of a more suitable size. Official policy is now much more enlightened as regards the accommodation to be provided or rather sanctioned for the two Home Crafts, Cookery and

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Laundry-work, though there are still many relics of the past in full use with official approval and with the prospect of a long life before them. Regulations as regards accommodation change, but conditions in old Public Elementary School buildings do not necessarily change with them. Unfortunately the idea still persists that the Home Crafts ought to be taught in conditions as nearly as possible identical with those that exist, but should not, in the cottage home of an agricultural labourer. Apparently the pupils are not expected to have any power of adaptation to circumstances or any need ever to use such powers. Even in large combined Centres and in Domestic Science rooms in new Senior Schools there is a marked tendency to cut them up into a number of miniature cubicles and to set a small group of girls to work in each cubicle "independently." Apparently the designers of such rooms think that the girls have never seen a kitchen before or worked in one before they entered the Centre, and that the kitchens in artisans' houses are all built on the same plan.

Modern ideas require much larger space for the teaching of Home Crafts than has been granted in the past, but official practice usually lags behind informed educational opinion and is never courageous enough to give a real lead. The present building regulations of the Board of Education state that "seven hundred and fifty (750) square feet should be contemplated, while eight hundred to eight hundred and fifty (800 to 850) square feet will undoubtedly give more satisfactory accommodation." There is a distinct hint in this statement, whether intended or not, that seven hundred and fifty (750) square feet will suffice unless the Local Education Authorities wish to be specially generous, and they seldom entertain such a wish. Therefore, rooms of seven hundred and fifty square feet are erected, and afterwards, when extension is impossible, it is found that for evening as well as day use the area should have been not less than nine hundred square feet, exclusive, of course, of the pantry and store-

room. For both discipline and illumination the partitions separating the pantry and storeroom from the teaching-room should be of glass. The architect should be enjoined not to run a hot-water pipe through the pantry, even though the diversion of his hot-water pipe may cause him some little difficulty. The architect may know the reason for giving the pantry a north aspect, even though he is a mere man, but he does not seem to wish to apply his knowledge when it would necessitate giving a nasty turn in his system of hot-water circulation throughout the school. In view of the varied uses of the Home Crafts rooms, it is advisable that the tables should not only be movable, but also not too heavy or too long. Shallow drawers to these tables are a great convenience. Wherever the necessary facilities exist, there should be provided a coal range, an electric oven, a gas stove, and an oil stove. The greater the variety of heating agents, the less the chance of rule-of-thumb teaching and the more effective the instruction. Even from the utilitarian point of view the different methods of heating are of advantage. No one nowadays can foretell what method of heating any one pupil will have to use in her own home, or in a home in which she is to be employed. Coal and oil are not now the only heating agents, even in remote country districts. In the houses on some Municipal Housing Estates electricity is used by the tenants for all purposes.

In Laundry-work electrically heated irons should be used, where electricity is available. The flexless iron is the safest, though its use is denied by some Local Education Authorities on the ground that it is seldom found in private houses. If flexes have to be used, they should be fixed to the ceiling, since otherwise they are a constant source of danger. Flexes fixed to walls at table height will continue to be used in private houses, but that is not in itself a sufficient reason for their existence in schools which teach and should practise "Safety First." When satisfactory arrangements can be made for their

purchase or hire, there is advantage to be gained in providing electric clothes washers. Not only are they being used more and more in private houses, but both children and their parents are meeting them in wash-houses provided for public use or for use of residents in blocks of flats.

Specially and appropriately equipped rooms have seldom been provided for Needlework and Dressmaking in Elementary Schools in general and in Senior Schools in particular, even though from one and a half to two and a half hours have been allocated each week to these subjects throughout the whole of a girl's school life. Possibly the need was not so obvious when much of the time was spent on sampler work, but now that in Senior Schools Dress-making is seriously tackled in all its branches, the case is altered. Far more space for cutting-out is called for. Desks with sloping tops are not suitable, and the ordinary Sewing Mistress's table is now not big enough for the constant calls on it. In addition, more storage accommodation is required unless the teaching space and the school corridors are to be ever encumbered with Needlework hampers. A room of at least seven hundred and fifty (750) square feet of floor space is required for a class of forty senior girls engaged in Needlework and in Dressmaking. There should be a large storeroom adjoining this room and with an entry from it. The teaching-room should have electric points for the electric irons and for the electrically driven sewing machines.

#### ART ROOM

No longer is the Senior School expected to give its Art instruction in an ordinary classroom filled with sloping-topped and immovable desks. Now at long last the provision of an Art Room, "not less than nine hundred (900) square feet in area," is officially approved for a class of forty pupils. This is still less than that which would be considered necessary for a class of forty Secondary School pupils of the same size and age, even though Applied Art

has always had a much higher educational value put upon it in Senior Schools than it ever had in Secondary Schools. Nevertheless very satisfactory work can be done in an Art Room twenty-six feet by thirty-five feet, and space can be found in it for some of the lighter crafts, such as Book-crafts, provided that the furniture is not too bulky. Forty single Art desks, that cannot be stacked, take up a lot of space, and do not leave wide enough corridors, especially when the room contains, as it should, two sinks with their draining-boards, presses, wall benches with gas jets, and at times cupboards. If Art desks cannot be dispensed with entirely, their number might well be reduced to twenty and the remaining necessary accommodation for twenty pupils be provided by means of chairs and trestles. The trestles answer the purpose admirably and have the added advantage that they can be stacked away in a little space when not required for the moment or can be used as supports for table-tops, when part of the room is required for the teaching of Book-crafts, etc.

A storage room about two hundred square feet in area is a necessity. Cupboards of sufficient size would take up space that cannot be spared. Moreover, there is no vacant wall space where they could be put, even if they were built into the walls. All wall space not filled with windows is required for display or teaching purposes.

The fact that the main light must come from the north gives some school architects the excuse, which they seize, to make the windows on the south side too small or, what is even worse, to omit them altogether in their admiration for wide expanses of plain brick walls. Windows are required on the south side as well as on the north side, not only to facilitate cross ventilation, but also to improve the natural lighting on the south side of the room. The windows on sides other than the north can easily be shaded with curtains if and when the light from them causes difficulty.

#### ROOMS FOR LIGHT CRAFTS

In every Senior School one or more classrooms should have a floor area of not less than seven hundred square feet, and each should contain one or two sinks and a wall bench, well lighted and preferably under the main window, and be provided with a supply of gas and electricity, when possible. The furniture should not be fixed to the floor and not be too heavy for easy movement. It may well consist of chairs and dual tables. Dual tables are convenient for class work and, if of the same height, can be put together when wider table space is required for any purpose, such as "cutting out." The nature of the work done in such rooms varies not only from school to school, but also from day to day in any one school. In girls' schools they house the dressmaking and needlework classes. They provide accommodation for the looms, and the printing press when weaving and printing have their places on the time-table. They are the homes of the bookcrafts and of the practical side of Geography. Whatever is taught in rooms such as these always calls for ample storage-room, preferably in a separate and adjoining room which has direct entry to the light crafts room.

#### STORE ROOMS

Deficiency of storage accommodation is the common defect of all schools. It has always been so and probably it will continue to be so until women take part in planning schools. Women have suffered so much in their man-planned houses, in the matter of cupboard room, that they will be prepared to sympathise with the schools and do their best to supply this long-felt want. There are few schools in existence which do not require three times the amount of storage-room than they have had provided for them. It is a rank absurdity to supply large teaching rooms at great expense and then compel the teachers to lumber them up with cupboards, unsightly hampers, and presses, simply because they have no other place where

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they can put the unfinished work of their pupils. The schools are being used more and more for evening classes and for social purposes, and this out-of-day-school-hours use overtaxes still more the present utterly inadequate storage accommodation.

### MEDICAL INSPECTION ROOM

One room which has in the past been generally forgotten in Public Elementary Schools has been the room required for the examination of the children by the staff of the School Medical Department. The examination has had to be carried out in the head teacher's room, in a staff room, or even in a classroom temporarily vacated, or in part of a classroom inadequately screened off. In none of these cases is the room suitable for the purpose. The parents are urgently invited to attend the examination, but no place is provided for them to wait their respective turns for interview. Two small rooms, say, seventeen feet by fourteen feet do not involve much expense in their erection, but whatever they cost they should be built when a new Senior School whether for boys or for girls, or for both, is being erected. Medical Inspection is compulsory and the proper facilities for its performance should not be refused. In large schools one of these rooms could be used for the treatment of minor ailments by the school nurse. This saves long and wearisome journeys by the pupils to the Central or to the Branch School Clinics and ensures that many little ailments receive treatment before they have a chance of developing serious septic conditions.

The medical inspection room in Senior Girls' Schools serves as a rest room for girls when occasion makes this necessary.

### THE LIBRARY

The influence of the Public Library has affected the Senior Schools not only on their cultural side, but actually in their structure. The School Library used to be packed

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away in any spare dark corner, as if it could not bear the light of day. Apparently its object was to lend books "not to be consumed on the premises," as if reading was a spare-time occupation, and not an integral part of day-school education. Now not only is the School Library supplied with books of reference, but these and the other books in it are expected to be used by the senior pupils during school hours. The School Library should, therefore, be fitted up with all the comforts of a home. A cubby-hole will no longer suffice, if it ever did. The general furnishing should not be inferior to that provided in the Children's Reading Room in an up-to-date Public Library. From reasons of economy, the School Library cannot be as large as those Children's Rooms in a Public Library, even in a large Senior School, but it should be at least large enough to take twenty pupils. A room twenty feet square will provide the necessary space for the shelving, and for the chairs and tables, and will allow the pupils to search for the material they require and to make the necessary notes in the comfort that should attend their serious labours.

## English

OF the making of many books on the teaching of English there is no end. Book succeeds book, each with the common characteristic, the giving of full and detailed instruction as to the best methods of teaching the subject. This is perhaps not surprising, since each book is written by an expert who loves and knows his subject, and who has himself been a successful teacher of English. The instructions in each volume are usually so detailed that it seems as if the author intends to save the teachers, who adopt his method, all need for thought and to tempt them, gramophonically, to give out the matter set out in the book without any special preparation to make it suitable for their pupils' absorption and digestion.

However good the matter and however satisfactory its suggested system of presentation, it cannot do much for the pupils unless the teachers have so studied and examined it that they have, to all intents and purposes, made it their own and practically forgotten that it was ever suggested to them by anyone else. Only then will they be able to make their lessons live before their classes, and only then will their pupils really enjoy them.

English should be the centre of all instruction. It is the medium of the presentation of the instruction, and it should, moreover, be the most interesting subject on the time-table. It is very questionable whether the lessons are enjoyed by the pupils as much as they should be. They seem to be more successful with girls than with boys. This may well be because the subject is presented in girls' schools in a more acceptable form. Girls are more ready to read independently, to write for the pleasure of writing, and to speak clearly and pleasantly. It may be easy to explain this by saying that emotional training is more readily developed in girls than in boys, but it is far more likely that the difference is due to the fact that in girls' schools

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English Literature is made to live, whereas in boys' schools it is still treated as if its only use was to enable the pupils to pass an external examination, even though external examinations are now seldom taken in boys' Senior Schools.

There has been, in boys' Senior Schools especially, too much analysis of English Literature, both prose and poetry, too much pulling apart to show why this passage should be admired and that not, or why this is good literature and that bad or inferior, too much of the spirit of parsing and analysis, though the actual parsing and analysis are not now often practised in Senior Schools. When teachers recognise that the teaching of English does not have as its principal aim and object the passing of a written examination in it, there is marked improvement in the results. The child has to be helped to express himself clearly and pleasingly in speech in the first instance and in writing later on, to give clear utterance to his thoughts and to what he has gleaned from the expressed thoughts of others, and to discover the great enjoyment that can be gained from the reading and study of good literature. The teacher does not at times appreciate sufficiently that his idea of what is good literature is not always that of his pupils, or rather that the literature he approves is not always that best suited to the mental development of pupils between the ages of eleven and fifteen years. There are, perhaps, some now—and there have been many distinguished examples in the past—who have developed at a very early age a taste for really good literature which would meet with the approval of the most fastidious, but these are the small minority. No doubt much of the fiction specially written for those on the threshold of adolescence, or just over it, is sad trash, but it seems to fulfil a purpose in the development of a literary taste in the young. It has a virtue that appeals, in that it is dramatic and has movement. If the pupils can be tempted to read even this kind of "literature," specially peptonised for their weak digestion, they may soon be

gently induced to pass on to something which will better try their teeth.

The habit of reading must be formed early in life, even before the Senior School course is entered upon. The pupils must be led to read independently, even though they may at first pick out the most "showy"—the books which are the most attractive from the outside, but not actually the most nourishing for their literary health. They will later in all probability select the less superficially alluring but the more sustaining and the more really satisfying. For this reading habit to be fostered the School Library must be made attractive, as attractive in its appearance, in its amenities, and its contents as the Children's Room in an up-to-date Public Library, and the pupils must have access to it and be given free time in it without subsequent meticulous enquiry as to the way in which the time has been spent there. There must be discipline, of course, in the School Library for the sake of the books and the fellow-pupils, but this does not involve an oral or written examination to find out what, if anything, has been gained from the hour or half-hour with books. The School Library should be closely associated with the Public Library and preferably managed by it. There will then be ensured a fairly frequent change of books and a trail led from the School Library to the Children's Room and the Lending and Reference Departments of the Public Library. This suggestion does not infer that formal lessons on Literature will no longer be necessary, but merely that they should be supplemented by free choice of literature, within reason, by the pupils. The pupils will become free to make their own choices after they have passed the legal age for compulsory attendance at school, and they might well be encouraged to exercise it, while they can, at school, receive guidance when they feel inclined to seek it. Later, the Public Library will be their natural source of literature, and they should have made a good connection with it before they leave school. The pupils will thus learn to select, to

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read, and to mark and learn, more or less unconsciously, in the process, and this will lead on to clear thinking and, consequently, to clear expression of thoughts.

Pupils must, of course, be able to pronounce words and phrases clearly and correctly, if they are to use them orally to express their thoughts. They should, therefore, have frequent opportunity of hearing and admiring clear and pleasing speech, not sing-song, in school and not only when they are listening to broadcasts. They will gain something from hearing their classmates reading aloud, but this in itself is not sufficient. It should be supplemented by readings of prose and poetry by the teachers of English. There is in Senior Schools too little use made of the reading aloud of prose and poetry. Apparently its value in developing and fostering an appreciation and a love of good literature has not there been thoroughly and generally recognised. The B.B.C. are now making good use of it for this purpose, but it took them a long time to make up their minds that anything good could come from it.

There are now in Senior Schools many methods of encouraging correct pronunciation and good and clear speech, e.g. Choral Speaking, the Drama, Debates, Story-telling, etc.

Choral Speaking cannot be praised too highly. It is not the old simultaneous repetition of poetry, refurbished up, which in days gone by was used to print indelibly on the minds of the pupils the words of the poem, but which certainly destroyed at the same time all its beauty and strangled at birth all love for poetry. Choral Speaking of the present day is a very different thing, and, moreover, it is equally effective with prose and poetry. It is curious that it is taken almost exclusively in girls' schools and in girls' sections of "mixed" schools. History does not relate the reason why, but merely records the fact. The improvement in speech which can be derived from it is really required more by boys than by girls, and yet its practice is denied to the boys and made a strong feature in

girls' schools, and not because boys' voices are not worth listening to, since few will deny that there is no sweeter sound in Nature than a boy's treble. There must be some other reason for its neglect in boys' schools, probably merely rank conservatism. Choral Speaking is valuable on account of its co-operative character. Each member of the choir takes her part, and the inferiority complex disappears before it has a real chance of getting a hold. The appreciation of the beauty of poetry is fostered when it is spoken, since it was written for speech. Of course, the poems selected for Choral Speaking must in themselves be suitable for rendering by a choir. There are plenty to choose from, and those unsuitable for choral work might be used for solo recitation, preceded or followed by the choral items. Choral Speaking is extraordinarily effective in training the memory. Memorising long poems or long passages of prose loses half its terrors, or all of them, and becomes a pleasure instead of a mere school task. The co-operation in the choir gives just the aid and encouragement that the weaker memory requires.

After Choral Speaking, which can, but need not, dispense with scenery, comes the Drama, second in its ease of presentation, but not in its value. The Drama has had its recognised use for years in the teaching of History in all classes and in the form of Action Songs in Infants' Schools, but now the provision of fully equipped stages in schools' halls offers a wider opportunity for its use, especially in Senior Schools. One-act plays, single acts from full-length plays, and even full-length plays can be produced in school hours. The keenness of the performers is increased if the performances are repeated in the evenings before an admiring audience of parents and others. No harm results from such occasional public appearances of the children, since they are not inclined to suffer from swelled heads, but act as if unconscious of their audience. It is not necessary to confine the plays to Shakespeare or to the other earlier dramatists, since there are plenty of other methods of communicating to the

pupils the strength and beauty of such great literature. Plays illustrating child life, and humorous at that, have their value, and they have the added advantage that they do not require children to assume the character of the aged. No doubt children in their hours of ease love to imitate the grown-ups, and their representations please and satisfy their companions, but repeated before an adult audience they do not seem to show up so well. In any case it is easier to train a child to act as a child, and dramatic work by children does require as careful and as skilled training as that by adults, if it is to be effective for its various purposes. Dialect can be dispensed with. Children have an unhappy knack of imitating what they hear, especially when it would be better for them to forget or to ignore. They are bilingual as a rule, and the cinema bids fair to give them a third language, and not one to be admired. There is no good reason for the School Drama to try to give them a fourth, and that a strange dialect. There is an ample supply of suitable plays without selecting those which might undo some of the good work that the English lessons have done in improving pronunciation of words and phrases and clarity of expression. The Drama can certainly have placed to its credit that it encourages and fosters careful listening—a very valuable quality, since it is the prerequisite of comprehension of an oral statement. The performers find it essential for the success of their combined work, and the audience for their enjoyment of the performances. Competition helps dramatic work as well as trade. In the City of Nottingham the Junior Drama League has done a great deal to encourage dramatic work in the City's Senior and Junior Schools, and incidentally to improve speech and its expression in both boys and girls. The schools, for the purposes of the Festivals, are divided into junior and senior sections. The eliminating competitions are held in four or five of the school halls which have fully equipped stages, and the Final Festival takes place in the Cottesmore Senior

Schools' Hall, the Juniors taking two evenings, the Seniors two evenings, and the Evening Institutes one evening. The schools' dramatic work prepares the pupils for more advanced work to be taken when school days are over, kept up in the evenings when the day's paid work has ceased for the day and the leisure hours ask to be filled. It leads on to the amateur dramatic work, so ably fostered by the British Drama League. It forms an additional link to keep in being the friendships and companionships formed in the day-school.

The self-confidence and initiative which have their source and encouragement in the Drama can be turned to advantage in story-telling by pupils in their last two years at school. Throughout the whole school life visits will be made to places of interest, and in the last year especially these visits will comprise offices, workshops, factories, stores, and docks. Such visits are generally made for the sake of information, but, as a rule, not as much use is made of them as might be. They form, no doubt, subjects for written compositions, but these compositions, when completed, never again see the light of day. Visits to factories, workshops, etc., give the pupils some idea of what awaits them when school days are over, and a line to their respective future occupations.

Such visits could be used to special advantage in oral composition, even if that oral work had to be preceded or followed by written, in accordance with the schemes of instruction laid down for the school. After the pupils have made notes of what they have observed in their visits, they can be called upon individually to give oral accounts to the class of which they are members. Improvements to the separate accounts can be invited from other members of the class and, if necessary, a polish can be suggested by the teacher. The final approved version can then be transcribed and printed on the school press, or typed and filed away in the school records, if it is not quite good enough to be reproduced in the school magazine. The element of competition, which can be so

excited, has its effect in the improvement in the quality of the compositions. The pupils see that there is some definite object to be attained from the exercises, and they are induced, unconsciously or not, to make more use of their powers of observation, since they find that observation must precede description.

The same method of encouragement and consequent improvement can be pursued with advantage, when verse-making is undertaken. The actual recitation of selected verses and the following co-operation in their improvement increases the eagerness of the pupils. Even those who find it beyond their powers to make much of a success of it can be induced to make suggestions for the betterment or the expansion of the work of others. The final printing and illustration of selected verses is definite evidence to the pupils of the real value of their work. Those verses which are not good enough to keep should not be destroyed in the presence of their authors.

Team work in composition, together with the critical faculty, should be encouraged as far as possible. This task is more difficult in boys than in girls, since boys are more self-conscious and are less willing than are girls to speak about what they have been thinking, doing, or writing. Still it must be kept in mind that the power of oral expression and the critical faculty will be of value to them in social and industrial life. They will have to observe carefully and describe the results of their observations, to listen to the remarks with an attentive but at the same time critical mind and not to take at its face value everything they read or hear. The critical mind should be fostered by every possible means nowadays when the idea is being spread so insidiously that "the voice of the Leader (however spelt) is the voice of God," and that it is the duty of the people merely to listen and to obey.

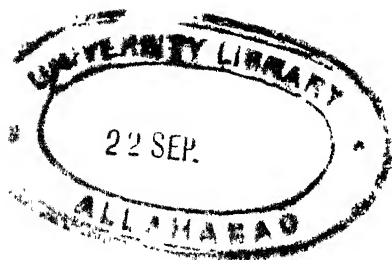
In the last year of the school life it is possible to extend the oral work by carrying on class discussions on subjects of interest, preceded by short lessons on the subjects and

by special periods set apart for elementary research work in the details. Later on the preparation should be made out of school hours with, if possible, the unofficial aid of the parents. Following on this can come the school parliament, after much previous practice in class discussions.

In all these movements the emphasis should be laid on the oral work, with the written work following it. This is a reversion, no doubt, to the methods used in the very early stages of teaching English, but it is none the worse for that. Then oral work was stressed, since speech came much more easily than the manual work of writing. Since then, with acquired ease in writing, the pendulum has swung too far away from oral work. For the great majority there will be a constant call for oral communications and their comprehension when school days are over and perhaps less for written communications. There is, therefore, every reason for special stress to be laid on oral work in the last year of school life. Constant oral work improves speech and makes it readier and clearer. Unfortunately the same cannot be said of written work, as regards either calligraphy or spelling. Spelling will always present difficulty with the awful English language, and even the resurrection of the "Spelling Bee" is not likely to have much effect on the written work. Often pupils, who can spell excellently orally, make absurd and laughable errors when writing, partly from rank carelessness and partly from lack of observation of the form of the written word. Dictation can perhaps do something to improve matters in respect of bad spelling, though by the time the pupil has reached the Senior School the defect has probably become chronic, and special methods are required for its eradication. The use of the typewriter, when available, may improve both spelling and punctuation in some cases. The school printing press is a help, if the class is called in for the work of proof-reading. Searching for incorrectly spelt words becomes a game by which all can profit. Such an

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exercise does not have the same deleterious results as are obtained from displaying on the blackboard glaring errors in spelling. The mistakes are not visualised in the same way, and confusion does not arise in the pupil's mind between the right and wrong method.



## Geography and History

GEOGRAPHY and History are unfortunate subjects in the courses of study in schools. They have had allotted to them two hours in each week from Standard I to the highest class or form in the Senior School, and their syllabuses have been most carefully and skilfully drawn up to suit the requirements of the pupils in Public Elementary Schools, if not in Secondary Schools. Every effort has been made to excite the interest of the pupils by means of lantern slides, films, diagrams, photographs, wireless broadcasts, excursions, etc., and yet the information imparted seems to make quite an ephemeral impression on and to pass rapidly from the minds of the pupils and does not show any sign of having aroused the slightest desire for continuance of the study, either formally or informally, when school days are a thing of the past. To a very large extent the temptation voluntarily to continue the study of any subject will depend on what has been taught in the last year of school life. If that appears to have some relationship to life outside the school walls, then the interest of the pupils in it will be deeper, since in the last year at school, deplore it or not, school tasks do not appear to be so important in the pupils' eyes as they did in the earlier years. The eyes of the pupils get turned more and more towards the practical problems which they will soon have to solve, and of which the solution will affect their future comfort and prosperity. Be this as it may, the fact remains that they show little or no desire to continue the study of the two subjects after they have left school. Both subjects take a very low place in the order of priority of choice by the students in Evening Institutes. In fact, it can safely be said that the only students in Evening Institutes who take these subjects are those who at or about the age of eighteen years require one or, less frequently, both of these subjects for Matricu-

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lation or for the preliminary examinations of some professional body. Both subjects are included in the courses for adults conducted by the Workers' Educational Association and by the Extra-mural Departments of Universities and University Colleges, but obviously the inspiration for the initiation of the courses conducted by those bodies has no connection with the teaching of the subjects given in either Senior or Secondary Schools. Their students are concerned with the social unrest in the world, and wish to learn something about its causes, so that they may play their parts in improving matters and in doing something to make the world a little better than they found it. Students between the ages of fourteen and nineteen years have little time at their disposal for attendance at evening classes, and they naturally prefer to spend what time they have and also to use what energy they have left when their day's work is over in the study of those subjects in which they are interested or in subjects which offer some direct pecuniary reward in return for the time spent on them. Unfortunately, neither Geography nor History seems to fall into either of these two classes. They have neither separately nor together any direct relationship to the respective occupations of the students and are, therefore, not looked upon as "bread-and-butter" subjects, even by the employers. They have never been considered in school days as wildly interesting. Both subjects therefore drop out of the students' programmes of formal and informal study, and educationists do not appear to worry their heads much about this result or rather this total lack of result of all their thought and labours.

The question does require serious consideration, since no one can imagine that so much has been learnt in connection with these two subjects by the age of fourteen years that their study can safely be dropped for evermore. Their study is not undertaken merely to fill vacant gaps in the school time-tables or to give mental training alone. The information offered is supposed to help the pupil to understand something of the world around him, including

the people in it and their social customs and the history of the development of those customs. In school the foundations only can be laid, but the process of laying of those foundations should have induced in the pupils the wish to build something more on them as time goes on. There is little or no evidence that such a desire is ever excited in the pupils' minds by the teaching of Geography and History. Further study for the purpose of passing an examination is not a sign of love for the subject or of a real wish to know more about it, but merely a sign of necessity. The subject once selected from the examination syllabus has got to be carefully studied in order to satisfy the curiosity of the examiner. Probably it is easier to excite an interest in Geography than in History. The lack of continued interest in History is probably due to the fact that school History stops short at too early a date, not, perhaps, as it used to do at 1815, but somewhere about 1900 or, at the latest, 1914. Modern History is not an easy subject to take in schools, since it bristles with difficulties, some of which might disturb the calm atmosphere of the school. If Modern History is not taken, the lessons have an academic air and seem to belong exclusively to the school and to have little or no relationship to affairs outside the school walls. The world is rushing along at such a tremendous pace, and History is being made so rapidly, that there is a natural temptation to dismiss from the mind anything which seems to have no direct bearing on what is happening now. Minds racked with fears for the immediate future are more concerned with the dangers ahead than with the history of the past, and the original causes of the present troubles. People are disinclined to delve in the distant past, when conditions were so different, and they feel that the history of the twentieth century is quite enough for them. This is no doubt an added reason for dealing with the history of past centuries and the real foundations of the present times in the comparatively calm atmosphere of the schools. There can be no possible objection to the schools paying

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special attention to the history of past ages, but it does not consequently follow that the history of the present day must be entirely ignored in schools, especially in the last year of the school life. The connection between the past history and that of the present has to be made sometime and somewhere, and it is asking too much for it to be done by the pupils unaided by anyone, at a time when they have as much as they can well do to adapt themselves to the new conditions of commercial and industrial life, into which they have been suddenly plunged at so early an age. This linking up is not a task for juveniles between the ages of fourteen and fifteen years unaided, and it is only right that the schools should be called upon to give a helping hand.

There is, no doubt, danger connected with the teaching of Modern History in schools; there is risk that bias will be imputed to the teachers, if ever they refer to anything that could be said to touch even lightly on politics. Extracts from a newspaper, read to a class or merely referred to in a class, may be objected to by parents who favour a paper of a different political complexion, even though the extract may be politically colourless. The objection is apparently based on the idea that the mere mention of the name of the journal might induce the pupils to read it surreptitiously and that in reading it their nebulous political views might be turned in a direction not approved by their respective parents. The nation as a whole prides itself on being tolerant of the views of others, but it does not show too ardent a desire to extend that tolerance to the teachers when they try to deal in the History lessons with the problems of the present day. In spite of the inherent difficulties of teaching Modern History in Senior Schools, something should be done to bridge the gap between the History reader or textbook and the daily newspapers before school days close. The newspapers will later be the common source of information, and its method of presentation of information differs widely from that of the textbook. The textbook gives all the facts as known to

the author, whereas the newspaper gives such information daily as it considers will be palatable to its readers and suited to whatever purpose it has in view at the moment. The building of a bridge between the two methods of presentation of History, under the constant fire of uninformed critics, will not be easy and will at times involve some risk of misunderstandings, but the risk is worth running and should be run. At any rate, the results of the present system cannot be said to be satisfactory, and some improvement to it is urgently called for, especially now that the age for compulsory school attendance is to be advanced one year. In the last year of school life it would no doubt be advantageous to summarise all the information on History that had been given in previous years, but the field is so vast and the time is so short that there would hardly be time to refer to anything but the bare bones, the mere foundations. The present superstructure which has been built on those foundations could scarcely be glanced at. In this last year, therefore, a more scrappy system of instruction might well replace the ordered syllabuses of the preceding years, and its syllabus of History might be based on what is daily or weekly reported in the various journals. Usually scrapbooks of pictures and extracts are constructed by the class or by the individual members of it for their own information, but little use of this can be made if the formal lessons are being directed towards what happened before even the parents of the present pupils were born.

Such a system would not make the schools the battle-grounds of conflicting political and economic theories. It is possible to refer to the systems of governments and to explain shortly what causes gave rise to them without trying to make converts to one or other of the experiments in economic control which are now being tried out more or less successfully. It may be agreed that this is quite possible and also advisable, but that there is considerable risk that a teacher with strong views on the economic or

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political theories might use the occasion unwisely and try to make an imprint, which might be indelible, on the plastic mind of the child. Of course, this is possible, but not very probable, and even if it occurred, it is doubtful whether the imprint would be permanent. So many other and conflicting views will be met with as soon as the industrial world is entered. Thought will be provoked and youthful convictions will melt away when it is found that the teacher's views differ greatly from those held by the companions of the office or workshop. The same risk is inherent in the teaching of a subject more likely to excite acute controversy than History, namely, Religious Knowledge. Yet everyone agrees that its teaching shall be entrusted to the teacher every school day, and for much more than the one hour a week that is usually spent on the teaching of History.

Modern History cannot be separated from Geography, especially if the subjects of the weekly lessons are taken from what is of especial interest in the week's news. There is no particular reason for making a separation between the two subjects in the last year, whether it is made in the earlier years or not. The subjects will be inextricably intermingled in the daily news, and therefore no artificial separation need be attempted. Even taking the two together, there will not be too much time available. Reference to past history will constantly be necessary to make some sense out of what is occurring at the present time, and this back-reference will require a very considerable amount of time.

## Mathematics

WHATEVER may be the purpose of teaching the various branches of Mathematics in Senior Schools, whether it is looked upon as the best means of training the reasoning power or whether it is considered merely as a strictly utilitarian subject, one thing is certain, namely, that for rapid progress in its study, the interest of the pupil must be aroused in some way or other.

In the past its influence on the progress of the pupils through the classes of the Elementary School was much greater than it should have been, since the classification of the pupils depended to a very great extent on their success in Arithmetical work. Those who did not shine in the work were kept down in the same standard for another year or two and made to repeat the elementary work over and over again, until they hated the very sight of an Arithmetic book. The general idea seemed to be that if the usual doses were not effective their number should be increased. It was too seldom appreciated that what was really required was a different prescription. As a rule, Pure Mathematics was taught, though the exercises had in their wording, but in their wording alone, some apparent relationship to practical problems that might have to be solved in life outside the school walls. Concrete proofs were discarded very early, in fact, as soon as the Infants' School was left, and thenceforward abstract principles ruled the day. There need not have been so much surprise that careless errors were so frequent. There was, from the pupils' point of view, no obvious reason for accuracy in sums which, right or wrong, were merely school tasks, and not too interesting at that, upon which depended little of any importance.

There is improvement when Senior School work begins, and the practical applications of Mathematics are of daily occurrence in the pupil's school life. Whether

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there is "transfer" of training or not, there is "transfer" of interest. If the pupil finds that his success in some special piece of practical work is dependent on a knowledge of Mathematics, and if he is eager for that success, he will turn to his mathematical lessons with greater interest and will, consequently, make more marked progress.

In addition to "transfer" of interest, there seems to be "transfer" of carefulness, whatever the psychologists may say. The pupil, finding constantly that carefulness and accuracy are essential for success in his practical work, tends to be more careful and accurate in the abstract work of his Mathematics lessons, and so makes more progress therein.

In Senior Schools the amount of time allocated to Mathematics can well be considerably reduced as compared with that which was given to it in unreorganised schools with their literary tradition and their defective accommodation for practical work. The reduction may actually be more apparent than real, since so much time is necessarily taken up in the practical rooms with Applied Mathematics. This fact should make the reduction more palatable to those wedded to the fancied necessity for spending one-fifth of the school time on Mathematics, as was the custom in the past.

Whatever else is expected from the teaching of Mathematics, the man in the street thinks that it should result in reasonable accuracy in addition, multiplication, and division of pounds, shillings, and pence, both mentally and graphically. The business man goes farther, and is inclined to condemn the whole system of education if such accuracy is not shown even by the most retarded. In the ordinary walks of life very little use is made of mathematical knowledge by the general run of people, but, in that little, accuracy is essential. If Mathematics is the best subject for the training and development of the reasoning ability, whatever that may be, then much more than mere accuracy in the three rules is to be expected from its lessons, but, if this is the case, it is to be regretted that its

formal and informal study cannot be continued after school days are over, since the reasoning ability is not fully developed at the age of fourteen or fifteen years. Whatever special methods have been followed before in its instruction, the utilitarian aspect of Mathematics should be stressed in the last year of school life. For instance, Book-keeping or its principles should be introduced, since it drives home the lessons of accuracy in a form which can be appreciated even by the immature mind of the pupil and, moreover, its study creates a good impression outside the school walls. As a general rule, however satisfactory may be the standard of knowledge attained by the pupil in the various branches of Mathematics, their application to the practical affairs of everyday life should be made quite clear and, as far as possible, experimentally demonstrated.

The subject, Mathematics, has seldom been a popular one with girls, and their progress in it has generally been expected to be slower than that of boys. This idea is reflected in the suggestion, often made, that the Arithmetic paper for girls in the Annual General Examination of eleven-year-old pupils should be easier than that set for boys of the same age. It is a fact that the average marks for girls in that examination is lower than that for boys, though the marks obtained by the top girl are not always lower than the marks obtained by the top boy in that examination. Presumably it is not the ability of the girls that is the cause of the difference. It may well be that the subject does not excite in them so much interest and that it does not appear to them to be of much practical importance or utility. Many schools have lately tried the experiment, in the last year of school life, of basing part (two-thirds) of their Mathematical teaching for girls on : "The Home : its purchase or renting, its furnishing (including hire-purchase) and equipment, and its maintenance"—including in its "maintenance" the clothing and feeding of its residents. Such a scheme requires close collaboration between the teachers of Mathematics and

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the teachers of Home Crafts and of Art, but it is none the worse for that. The system meets with the approval of the pupils and is a distinct help to the teaching of Home Crafts. It should aid future accounts-keeping in the home. The system has so far been confined to girls in Senior Schools, though there seems no reason why it should be considered unsuitable for boys. Apparently it is thought that the whole duty of the man is to provide the cash for the running of the home and to leave the actual details to the woman. He may be wise in so doing, though one might well think that the home should possess most of the characteristics of a co-operative society.

## Science

DURING the past thirty years in Senior Schools equipped for the teaching of Practical Science and also in Secondary Schools the tendency has been to concentrate the instruction on the inanimate in preference to the animate, on the laws of Nature that rule the universe rather than on the laws of life which should rule the living. This curious partiality for the inanimate is usually explained by saying that the schools, for once in a way, followed the example of the general public. Scientific invention had made people interested in Chemistry and Physics, and the schools founded their instruction on what was at the time interesting the parents of their pupils, and so adopted Chemistry and Physics as the sciences to appear on their time-tables. It is doubtful whether they ever did anything else so sensible for such a reason. It would be easier to accept the suggested reason if special emphasis had been laid upon the application of Physics and Chemistry to the things of everyday life, but that was not the case. It was Pure and not Applied Science that was taught in urban schools and also in rural and semi-rural schools. Even when Senior Schools had school gardens, Biology was not allowed to do so much as to flavour the instruction given in Science in those schools. It is much more likely that the Universities were really responsible for the adoption of un-Applied Physics and Chemistry, since they gave far more attention to Physics and Chemistry than to Biology and turned out more graduates in the first two sciences than in the last-mentioned. Some of these graduates in Chemistry and Physics drifted into teaching posts in Secondary Schools, in Training Colleges, and into positions of authority in educational administrative services, and they naturally preferred to teach and have taught the sciences they had studied themselves, and they also saw to it that the Science rooms in the schools

were specially equipped for the teaching of Chemistry and Physics. When their pupils, in course of time, entered Universities to study for Science degrees, they naturally preferred to stick to the subjects they had taken in their Secondary School courses, since they had a greater chance of success in them than they would have had in other subjects, and since, moreover, at the Universities changes to fresh subjects are not encouraged. This vicious circle still exists and now affects Senior Schools as it has affected Secondary Schools in the past. An advertisement for a teacher of Chemistry or Physics will draw many applications, but one for a teacher of Biology may appear as often as patience allows without a satisfactory reply, at any rate, so far as Senior Schools are concerned. Such Biology teachers as exist are snapped up by the Secondary Schools, and the Senior Schools are left with the task of converting physicists or chemists into biologists, and this is not easy, since the Senior School Biology is not merely a classroom subject, but has to have its practical application in the garden and on the Nature Study excursions. A teacher with a good Biology degree finds that there are many matters that did not come into his courses of study in the University which have to be dealt with in the applied work in the garden.

The pendulum generally swings too far when once set into motion, and it seems to be swinging too far at present in Science teaching. There is a tendency to demand concentration on Biology and to neglect Physics and Chemistry too much. The excuse given is that time will not permit Physics and Chemistry to be included in the syllabuses if Biology is taken. This would be true if the intention was to turn out at fifteen years of age the completed article, the analytical chemist, the physicist, and the biologist—but it isn't. The intention is to give the pupils an introduction to scientific thought and investigation, to widen their scientific horizon, and to increase their interests in what is going on around them.

It is not possible to ignore Physics and Chemistry when

teaching Biology; life is affected by the natural laws. When Hygiene and Human Physiology are included, as they should be, Chemistry and Physics must be referred to. The wider syllabus cannot of course be carried through even with a school age raised to fifteen years, if the pupils are to be expected themselves to carry out all the necessary investigations experimentally. This is neither necessary nor advisable; much can with advantage be demonstrated by the teacher, but this does not involve a return to the former practice in Elementary Schools of demonstration by the teacher and passive listening by the pupils. With all respect to its original advocate, it never was common sense to suggest that pupils should be set to discover everything for themselves. Their minds are not blank sheets when they enter Senior Schools. They did know something and were curious about more, and are eager to learn much in a short time. They want to "see wheels go round," and find out something for themselves; they ought to be allowed to investigate for themselves, but that does not mean that short cuts are not to be allowed at times to reach the desired end. The short cuts should not be so numerous as to make the pupils miss entirely the things they set out to find. There is a golden mean between doing everything for oneself and having everything done for one by someone else.

The pupil should be encouraged to look on himself as an investigator on his own account and not merely as an investigator of things in which his teacher thinks he should be interested. What he is generally given is a course of Physical Science very similar to the following, and he is expected to plough through it from the beginning to the bitter end: "The moment of a force. The centre of gravity. Levers and wheel and axle, pulleys, inclined plane. Density and relative density, Archimedes' principle and Hare's apparatus. Three states of matter and change of state on heating. Solution and filtration, crystals and crystallisation. Expansion and contraction of solids, liquids, and gases. Thermometry. Conduction,

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convection, and radiation of heat, specific and latent heat. Elementary properties of magnets, lines of force around magnets, simple cells and batteries, resistance, electromagnetic induction. Chemistry of air, water, and chalk, oxidation and combustion. Acids, alkalis, and neutralisation."

Such a course would no doubt give the pupil a great deal of information which might be of value to him later; more ground would be covered, of course, if the work is not delayed by explanation of its practical applications. The pupil knows all along that the course has been arranged for him by his teacher. He has had no part in its planning and he is required to follow the trail laid down for him; there are to be no wanderings off on voyages of discovery and no pleasant surprises.

He may prefer such a prescribed course to one which might have a more practical application to life outside the school premises. He may be intensely interested in each of the experiments he is set to do or to watch. He may be quite clear as to the reasons for their selection and as to the use he is later going to make of the conclusions he has drawn from them. The days of miracles are not past. It is far more likely that he would prefer to postpone the consideration of a moment of a force or of the working of levers or a system of pulleys until he had the need for the knowledge; or to put off the study of magnetism and electricity until he has to deal with the structure of his flash-lamp or of an electric bell, or until he is engaged in finding out why a fuse blows and how to replace it when fused.

The pupil of either sex is more likely to be interested in scientific problems and investigations which are closely connected with the things with which he or she comes into daily contact. The home and the garden should be made the centre of instruction in science, especially in the last year of school life. The house, its occupants, and their occupations in it will provide introduction to every scientific principle it is desired to investigate. The

course would cover: "The House : its aspect and site, the soil and subsoil under and around the house, the structure of the house and the working of its various parts, its water supply, its sanitation, ventilation, heating, and lighting, the cooking of meals and the washing of clothes, the storage of food, the health of its occupants, and its preservation." All those subjects should be brought before the child before he leaves school, and investigated experimentally.

The garden, together with Nature Study excursions, can well form the basis of the instruction in Biology, and the garden can be used most effectively if it adjoins the school buildings. The school gardens have unfortunately been regarded too much from their vocational aspect, and their educational value has not been fully appreciated. Those who own gardens should be encouraged to cultivate them so as to obtain from them the maximum of pleasure and profit, but owners of gardens are not the only ones who can gain advantage from biological instruction. Those who are not fortunate to possess a garden of their own should be able to obtain from instruction based on the garden something which will stimulate and increase their interest in things around them, when they take their walks by the countryside or in the public parks. The principles and practice of horticulture have been looked upon as more appropriate to schools in country districts and of less practical interest to schools in urban and semi-urban areas. There are, however, few even of the larger towns where the garden is not of some importance in the home-economy of a great number of its residents. On the Municipal Housing Estates a fair-sized garden is not only provided for the tenants, but those tenants are expected and enjoined to keep those gardens tidy and to use them to the best advantage, and they are encouraged in their efforts by technical advice and by the offer of prizes for the best-cultivated gardens. In the Housing Estates Schools Biology, with special reference to the garden, should be taught and the work within the class-

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rooms should be supplemented wherever possible by work in a school garden. This will excite the interest of the parents in the gardening, and their interest in this can easily be extended to comprise other subjects on the timetable.

It is far better to run the school garden on the co-operative plan than to provide a separate plot for each pupil. Team work should be encouraged wherever possible in this as in other subjects. Shares may be taken by individual pupils, balance sheets struck at the end of the season, and dividends declared, thus showing that profit can accrue from gardening, and teaching at the same time practically the elements of book-keeping. Such a co-operative plan does not prevent experiments being carried out on the growth of crops, even though the results in any one season may decrease the profits, nor does it stand in the way of the pupils making their own greenhouses and garden frames and erecting them, from excavating their own lily ponds and waterproofing them with cement. Permanent structures such as greenhouses and potting sheds cannot, of course, be made every year, since the garden's demand for them is limited, but once made they will stand as memorials of the successful craft work of a group of pupils who have done something to leave the school a little better equipped than they found it. The school garden, even though treated as a business proposition, should be made at the same time a thing of beauty by the growth of flowering plants and by their studied arrangement. This is important from two points of view: it makes the school premises more attractive and rejoices the pupils' eyes when they are lifted from their school tasks at odd moments, and its lessons are carried to the homes of the pupils and have a direct influence on the management and arrangement of the gardens at their own and at their neighbours' houses.

The school garden gives opportunity for studying animal life, since the garden will receive many visitors, some welcome and some unwelcome. The number of welcome

visitors can be increased if bees are kept, as they can be, even in town schools. The lily pond can compete with the indoor aquarium as a home for water denizens. The keeping of poultry and rabbits can be taken on in urban as in rural schools, if arrangements can be made for their feeding, etc., throughout the year by the pupils themselves, but the lesson that can be learnt from their care loses half its value if the pupils are relieved of their responsibility during the hundred and fifty days in the year when the school is not in session. So far as animal life is concerned, no advantage can be gained from the dissection of frogs, worms, rabbits, etc., that cannot be gained without risk by the use of diagrams and anatomical models. Excellent flat anatomical models in paper and cardboard are on the market and can be purchased at a comparative small cost. The objection to dissections does not apply to the plant world, and there the living object is much to be preferred to the diagram or model. The living plant and animal should as far as is possible be studied in their habitats, since only in this way can their mode and conditions of life be really understood. Classroom instruction is apt to give rise to very erroneous ideas. Experiments on the physiology of plants must to a large extent be carried out in the classroom, but even these should be checked in their conclusions by observations in the open.

There is at present a marked tendency to limit the practical instruction in science to the "A" and "B" classes and to deny it to or reduce it to a minimum in the case of the "C" and "D" classes—a tendency that is to be deplored. The instruction may, perhaps, need to be simplified and made more concrete for the backward, but it is actually as necessary for them as for the more advanced. Even a hewer of wood and a drawer of water might find his work made less laborious if he has had some practical lessons on the moment of a force, and on the principles of the inclined plane, and in any case, whatever else he does, he will have to live in a house and

may have a garden in which to work. He should profit if he has been taught the reasons for actions that make for success and those which will result in failure. There are many in the super-classes who find even a little knowledge of a subject is of value to them, e.g. many quite sensible people are content to know just enough about a motor-car to drive it, and find their knowledge sufficient for their purpose, at any rate, until something happens which requires the skilled attention of someone with more complete knowledge. So with the "C" or "D" pupil, who can learn in the science room and in the garden quite as much of the work as the motorist knows of his car, and enough to answer his needs fairly satisfactorily in his ordinary avocations.

For all pupils in their last year the Science teaching should have direct relationship to life outside the school walls, and it will then act as a foundation for whatever further study or whatever practical work they may undertake when school days are over.

## Arts and Crafts

BEFORE the birth of the Senior Schools and before their equipment with rooms suitable for their practice, Art was kept isolated in a compartment to itself and was not allowed to interfere with or co-operate with any other subjects on the school time-table, whether practical or academic. Very little time was spent on it, less by girls than by boys for some inexplicable reason, even though girls had obviously wider opportunity for applying in their homes and in their dress the knowledge and manual skill they could have gained from it. Boys, when not occupied with Scale and Geometrical Drawing, had set before them freehand copies of Ornament, of which they had never seen concrete examples and in which they would not have been interested at that stage of their existence if they had seen them. By way of a change they were at times asked to make sketches of uninteresting models in light and shade in conditions which made the shading an act of imagination and not the result of observation. Design was taken by both sexes, or rather geometrical figures were drawn, and after their sections had been covered with all the colours of their paint-boxes were consigned un lamented to the waste-paper basket, since there was no practical use which could be made of them. The designs were usually labelled "original," but it generally required little examination and comparison to show the real source of the "originality." This design work may have done something to demonstrate to the pupils the teacher's ideas of beauty, but it certainly did not encourage them to give form to their own ideas or to make use of their own powers of observation and their own taste. It would be grossly unfair to blame the teachers for the defects of their teaching of Art in the past. They were class teachers and not specialists in Art. They did their best in difficult conditions, but could not be expected to per-

form the impossible. They were practically compelled to carry out the whims and fancies of higher authorities, who had their own peculiar ideas not only on the way Art should be taught, but also on the accommodation which should be provided for its instruction. Even if the teachers had had the highest qualifications and also full liberty in its teaching, the conditions would have been too much for them. The school and its surroundings could not be considered the most favourable forcing grounds for the appreciation of what is beautiful in Art and in Nature. Nature in a town school was usually represented by a few aspidistras in grimy pots, by some struggling seedlings in a saucer, some tadpoles or sticklebacks in a glass bowl, and perhaps a solitary plane tree in the distance. In the country Nature was at the school door, but was seldom allowed entrance to the Art room or rather to the room in which drawing had to be taken. As for Art and Craftmanship, the town school was an excellent example of all that it should not have been from the artistic point of view. Its grim exterior, the high blank walls of its asphalt playgrounds, the dimly lighted corridors and classrooms with their walls half-lined with salt-glazed bricks or painted a deep brown to hide the adhering dirt, the dark ungraceful furniture, and the grimy school pictures of no artistic or historic merit, all taken together may have inculcated a distaste of what is mean and ugly, but they certainly would do nothing to further the artistic civilisation of the pupils. Now, with more enlightened opinions and greatly improved conditions, Arts and Crafts are no longer isolated from one another and have at last the chance of working, hand in hand, to improve artistic appreciation and to give the pupils a real chance of expressing graphically their own ideas and also of applying those ideas to some practical purpose. It is being recognised that practice should accompany or precede precept, and that an artistic atmosphere should surround the teaching of Arts and Crafts.

There are encouraging signs that school architects no longer think that schools should have all the external and internal characteristics of a disused prison, and they are apparently trying to educate school children to admire their peculiar ideas of what is supposed to be beautiful in modernistic architecture. They might be more successful in their efforts if they did not so often sacrifice the plan to the façade. A building beautiful to the eye loses half its charms when internally it is a constant source of annoyance through its unsuitability for its purpose. School architects in their new buildings have the chance of displaying daily object lessons which will have their effect in fostering artistic appreciation in the pupils attending the schools they build. Old school buildings should not be despaired of, since the high brick walls between the playgrounds and those separating them from the streets can be demolished and replaced by floral borders or by light fences, or even by a painted line across the playground. There is no reason now for pupils being cut off from the public view when they are at play, nor is it essential in a mixed school for the boys' playground to be separated from that of the girls by an eight-foot brick wall. Removal of dividing walls gives a sense of space which is comforting to the studious mind. The ecclesiastical windows to the classrooms and halls can be replaced by french windows on the sunny side to let in light and air, and the internal walls can be brightened by colours from the middle of the spectrum. The furniture can be improved by a coating of bright paint, and gardens can be impressed into service to further the artistic education of the pupils in both old and new schools. With the improvement of the surrounding conditions, with the proper equipment of their special rooms, and with the skilled guidance of the specialist teachers, Arts and Crafts have now their chance of taking their right place in the education of senior pupils.

Art spreads its influence over practically all subjects of the curriculum. History is enlivened by drawings in

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colour of costumes of the past and present, and of buildings, ancient and modern, by the fresco charts on the school walls, setting out the dates of important events and the portraits of those who took part in them, etc. Geography is made more comprehensible and more attractive by the drawing and colouring of its charts and maps with contours and with illustrations of products of the regions, and by the reproduction in colour of such of those national costumes as our so-called civilisation has allowed a continued existence. English is grateful for its aid not only in the Book-crafts but also in its Lettering, which lead the pupils to admire good printing in the books they read, and incidentally demonstrate to critics that pupils can, if they are put to it, write as legibly and as beautifully as their ancestors are said to have done.

The greatest victories in the co-operation of Arts and Crafts are probably in the Home Crafts and in the Book Crafts which are now so popular both in Junior and in Senior Schools. Art has its special opportunity in the Home Crafts, which include not merely Cookery and Laundry-work, but also Upholstery, Needlework, Weaving, Fabric Printing, and Pottery. There is no apparent or real reason why all these Home Crafts should remain the exclusive preserve of the girls, but tradition will have it so. So far as Cookery and Laundry-work are concerned, scarcity of accommodation will confine the work to girls, since their natural interest in those two subjects is greater than that of boys, who have been brought up to believe that they should passively allow their health and home-comfort to be ensured by the self-sacrificing labours of their sisters and mothers. There is no reason why Fabric Printing and its preliminary designs should not be undertaken by boys instead of being left to girls, as it generally is in both Junior and Senior Schools. Pottery and Weaving, which thrive in girls' schools, giving excellent opportunity for design work, lead a struggling existence in boys' schools, if ever they are fortunate enough to gain entry to them, and yet both these are crafts in

which men are occupied now, as they have been in the past in the industrial world. It is not that girls have more time to spare for Craft Work in their schools than have boys; they actually have less, since Home Crafts, including Needlework and Dressmaking, are ever calling for more time than is at present given to them. It is not that the refining influence of Art and Craft work is required more by girls than by boys. It may be that the schools are counting on the fact that the girls, when they grow up, will be the arbitresses of taste in the home and that they will be able themselves to educate their menfolk to appreciate what is fine, fitting, and beautiful in form, pattern, and colour. The improvement in taste in the furnishing of the home and in the dress of its occupants has been very marked since Arts and Crafts have been so well taught in the Senior Schools, but the advance would probably have been even more rapid and more complete if equal attention had been paid to them by both of the two sexes instead of by one of them in the Senior Schools.

Boys make good use of design in their handicraft rooms, but they have not therein the same opportunity for frequent exercise as the girls have in the application of design in their numerous and varied crafts. The boys take up a fair amount of time in the making of each object of utility in their handicraft rooms, and the article once made, whether in wood or metal, or in both, lasts a lifetime. Girls apply design in many different forms in numerous articles of dress or in materials for the home, and each article takes comparatively little time to make and when completed has a short life and has to be replaced by something else. The great variety of their Arts and Crafts work and its obvious value in their daily life naturally increases the interest of the girls and makes them all the more eager to excel. The great variety of the work has the added advantage that there is always some part of it which can be tackled successfully by each individual, whatever her native ability may be.

Both boys and girls throw themselves wholeheartedly

into the Book-crafts, the Linoleum Printing and Stencilling, and the Poster Design work. In these crafts they are able to work as a team, calling in the aid of their more adept companions for the completion of some detail of their work. In Poster Work, for instance, the design may well be the combined effort of three or four pupils, with its lettering completed by still another member of the class specially expert in that craft. So also in Book Production; end papers, title pages, illustrations, decorated initials, and the written matter should not be the unaided work of one gifted pupil, but should be composed of contributions from various members of a class or of more than one class. The literary work and the underlying research work should be carried out in the English room with the not-too-obtrusive aid of the English specialist. The working of the printing press may well be left to the boys, though co-operation with the girls in the same Senior School or in a neighbouring Senior Girls' School can easily be arranged and carried into effect, when Book Production appears on their respective time-tables. The printing and illustration of the school magazine, of the sports programmes, and of the programmes of the various school functions may well be the joint efforts of the two sexes, the boys being responsible for the setting of the type and for the actual printing, the girls confining their share to the preparation of the designs and to the composition of some of the literary matter.

The courses of instruction in Arts and Crafts will be continuous throughout the whole of the Senior School life. In its earlier stages it will join end-on with the work of the Junior School, in such crafts as Weaving, Pottery, Linoleum Printing, Book Production, as well as in Poster and other design work. There seems to be no advantage to be gained by adding in the last school year one or more crafts to the number that have been taught in the previous years. A higher standard should, of course, be expected in that year in the Arts and Crafts which have already been taken, but none of the traditional crafts need have

its introduction postponed until that last year. There should be some freedom of choice in that year on the part of the pupils, and they should not all be required to continue with all the crafts they have taken so far, if they show an obvious predilection for and special ability in one or two of them. There is no educational objection to partial specialisation in one or two crafts which incorporate practice in design, especially if that partial specialisation does not necessitate too much extra time being given for the purpose. If a pupil is allowed to devote to a craft, he likes and excels in, the greater part of the time allocated to Arts and Crafts in his class, he will be much more likely to continue with it as a leisure-time occupation when school days are over, even if he does not find that its practice gives him any advantage, pecuniary or otherwise, in connection with the duties of the post he is called upon to occupy. Book-crafts, Lettering, and Poster Work have found their uses in both commercial and industrial life to the pecuniary advantage of the young employee who did not take up the subjects in school with any idea that they might help him to get a better-paid post, and, incidentally, they have caused some employers to think better of some of the school activities which they had before looked upon as useless and expensive frills.

Business men have been known to exclaim, in the words of a distinguished naval officer: "There is something in your — Board School Education after all!" when they have found in some of their junior employees some unexpected capacity which they could turn to advantage in their own affairs.

The value of craftsmanship and artistic training is not any the less from the educational point of view merely because there is a probability that it can be turned to the financial advantage of the individual or of the community when the period of day-time instruction has come to an end and the life's work is entered upon.

## Handicraft

HANDICRAFT, so long isolated in distant Centres and confined to the working of wood, is gradually having proper accommodation found for it on the premises of Senior Schools, and its scope is being extended by the inclusion of metal-work, and its equipment by the provision of machinery manually or electrically driven. There is no apparent reason why the introduction of metal-work and of machinery should have to be postponed until the transfer to the Senior School premises has taken place and the Centres have been closed finally. It may be said, of course, that it would be rank extravagance to spend money on making alterations in Centres which, sooner or later, will not be required for their present purposes. There would be more force in this statement if it were probable that the transfer would be immediate, but unfortunately this is far from being the case, since it will be many years before all the necessary Senior Schools will have been erected, and in the meantime the instruction of the pupils will be suffering. The accommodation for the teaching of the other subjects on the time-table of their present schools is much less satisfactory than that which will be provided in the new Senior Schools, to which the pupils hope to be transferred when the building of those schools is completed, and this should be an added reason for improving the facilities for teaching handicraft in the Centres which the senior pupils now attend outside, and sometimes far from, the school premises. If the senior pupils cannot have given to them now all they are entitled to and all that will be given to those who will follow them, they might at least have "something on account" of their general deficiencies.

The pupils at present attending the Centres are growing older each day, and in the ordinary course of events will not have a chance of profiting by the improved facilities

which are to be provided in the future in the new schools, and therefore money spent in existing Centres for the teaching of metal-work, and on their equipment with machinery will not be money thrown away.

So far as the machinery is concerned, it can easily and cheaply be transferred to the new premises, even if it is electrically driven, since each piece (lathe, drilling-machine, emery grinder, power hack-saw, etc.), has its own separate motor. There is little in connection with its installations which will have to be scrapped and the value of this would not be great; when its cost is spread over the four hundred pupils who attend the Centre each year, it would not amount to much per head. Since the advantage gained by the pupils would be considerable, this expense should not be grudged.

It is possible, of course, to argue, firstly, that there is no special advantage to be gained in providing machinery and in including metal-work, and, secondly, that wood-work will answer the desired purposes, whether the object of the instruction is utility or education, or both combined. This argument should apply with equal force to the handicraft rooms and the handicraft instruction in new Senior Schools. Whether it applies or not, the fact remains that Local Education Authorities, practically universally, do equip their new handicraft rooms with machinery, more or less generously, and do make arrangements in them for the instruction in metal-work as well as woodwork.

The introduction of machinery still has its opponents, though experience reduces their numbers as time goes on. Its opponents were originally afraid that the use of machinery would militate against the use of hand-tools, and if that had been found to be the case, it would certainly have been a very serious objection to its introduction, since the great majority of the pupils would have in the ordinary course of events have had little or no opportunity for using machinery, once they had left day-school, whereas in their homes and elsewhere they would probably find many occasions for making use of their

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skill with simple hand tools. Experience shows that this neglect of the hand tools does not occur, even when the handicraft rooms are generously equipped with electrically driven machinery. The skilled teacher sees to it in any case, since he knows quite well when the machine and when the hand tool should be used, if the pupil is to gain the desired educational advantage from his teaching. Actually the number of machines is never sufficient to allow any one of them to be continuously used by a single pupil or even by a group of pupils. The use of the machine avoids long periods being spent without any educational advantage in the repetition of one operation, such as drilling a series of holes in a piece of metal. It can be used to avoid unnecessary labour involving undue fatigue, and it makes possible the undertaking of large pieces of work requiring team work, and such team work should be undertaken, especially in the last two years of school life, since it not only serves as an introduction to conditions the pupils will possibly be called upon to endure in their daily avocations when school days are over, but it also inculcates incidentally the principles of citizenship, of which the basis is co-operation for the benefit of the community. In such large pieces of work there is of necessity much repetition of the same operation; it is far better to get this over as soon as possible with the least expenditure of energy and to get on to something of a greater educational value.

The small individual model, which when completed becomes the property of its maker, is necessary in the early stages of the instruction in the handicraft room, but there should be substituted later on larger pieces of work, more difficult of construction and carried out with the co-operation of other members of the class. For this, the drawings and blue prints should be made with the guidance, not too obtrusive, of the teacher in charge of the class.

The guidance should not be so constant as to remove all chance of error in any one operation. Many valuable

educational lessons are learnt through trial and error. Handicraft has this advantage over many of the other subjects of the curriculum, that errors in it, due to carelessness or lack of skill, cannot in all cases be put right merely by calling in the teacher's aid or even by the use of glass cloth or putty. The pupils have this fact driven home in a way they can well appreciate.

It is unfortunate that some Local Education Authorities, exercising a false economy, frown upon a system which makes use of trial and possible error by pupils. They consider that such errors as occurred would result in wastage of material. This would probably be the case, but they ought to recognise that what is lost in the raw material is gained in the more valuable mental training.

It is not essential or advisable that all the drawings required in Handicraft should be carried out in the handicraft room, which is not really appropriately furnished for the purpose. Handicraft is no longer an isolated subject, as it was when taught exclusively in a distant Centre, and it should not now be taught as if it were still isolated. It is now one of a team working together to ensure that the pupils shall receive the full benefit of a liberal education which will fit them for their next stage of life. The teaching in the handicraft rooms should be correlated and co-ordinated with that given in the other rooms of the school, and this wished-for end will be furthered if the teachers co-operate with the handicraft teachers in the preparation for and the designs of complicated pieces of woodwork and metal-work. The amount of time allocated to Woodwork and Metal-work is generally one-tenth of the weekly school hours, but there is now no psychological reason for this exact apportionment, if ever there was one before. Woodwork and Metal-work are no longer the only forms of Handwork taken in Senior Boys' Schools. They are now co-operating with other crafts and, therefore, do not carry the sole responsibility for the so-called hand-and-eye training as they did in the past. No doubt they will continue to be

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the most popular crafts on the boys' schools' time-tables. They have been highly regarded as crafts through the centuries and, so far as the schools are concerned, they have been taught to pupils for years and so have firmly established their positions in the schools. The apportionment of time to these subjects rests on tradition more than on any other consideration, and that traditional practice was based originally on convenience. The Woodwork Centres were usually at some considerable distance from the schools from which they drew their pupils, and, therefore, it was more convenient to send classes to them for the whole of a morning or afternoon session than for part of a session. There would have been a considerable waste of time in the transit, if the pupils had had to go to the Centres or come from them in the middle of a session, and moreover a session of two hours or two and a half hours gave the pupils a better chance of getting on fairly well with their work of construction. This weekly half-day fixed the allocation immovably on the time-table, and so when later it was found more convenient for the pupils to remain at the Centres for a whole day instead of a half-day, they went to the Centres once a fortnight in place of once a week. The allocation of a whole day did save time, since it was not essential for the morning's class to spend valuable minutes clearing up in readiness for the class which came in the afternoon, and, moreover, it did give the pupils a better chance of finishing the work on which they were engaged instead of having to leave it for a week just when it had reached an interesting stage, and in addition less storage room was required for unfinished work. In the Senior Schools in the City of Nottingham, this system of intensive work has been further extended on educational grounds and not merely on grounds of convenience. The pupils attend for handicraft instruction for two days or for two and a half days consecutively in their first year in the Senior School and sometimes in part of their second year also. Thereafter they attend for a full week, beginning on a Wednesday

afternoon and ending at the end of the following Wednesday morning's session. The interval between two weeks' attendances varies with the number on the rolls of the school or rather on the number of classes in the school, but the actual time given to the subject during the whole of a school year is the same in total as that which would have been given if the pupils had attended for half a day in each of the forty-two school weeks in the school year. In a ten-class school working on this weekly system, the pupils would return to the handicraft rooms after an interval of nine weeks.

Those who have had no experience of such an intensive system of teaching raise all sorts of conceivable and inconceivable objections to it. Their first objection to it is that it is unusual and not traditional, and changes must always be suspect. They say also that the pupils ought to be bored stiff and unduly fatigued before the end of the week, that they will have forgotten all they had learnt by the time they take up again their Handwork, and that the break in the continuity of the teaching of the other subjects will militate gravely against progress in them. They think these statements fairly conclusive, but if they were hard put to it, they would, no doubt, invent many other reasons against any departure from the practice they have made their pupils follow in the past. They love destructive criticism and have an innate objection to testing experimentally any method that seems to them to be unusual.

If the pupils were bored with their week's work in Handicraft, or even unduly fatigued, one would expect that the attendances during that week would be lower than the normal, but actually they are much higher than the normal, and a hundred per cent. is not at all unusual. The break at the week-end gives all the rest required for exceptional cases. There may be some little strangeness when the pupils come again to their Handicraft work after an eight or nine weeks' absence. Whether it exists or not, it is hard to detect, and in any case it soon wears off and

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is no more obvious than the strangeness with the half-a-day-a-week attendances at a practical subject. Manual skill, attained, as it is, in a week's attendance, is not lost so rapidly as the opponents to the intensive system wish to imagine. They could if they wished draw a comparison with skating, in which the skill, once attained by a consecutive week's practice, is never lost, however infrequent the winters severe enough to allow its practice. In a consecutive week's attendances, the lessons are so well driven home that they stay permanently ingrained in the mind which directs both hand and eye. There is, of course, some break in the continuity in the teaching of other subjects on the time-table, so far as the actual formal work is concerned. There is a break at the week-end and during the holidays, but there are few who would advance the opinion that the pupils forget in those intervals what they have learnt previously. In many cases the change is all for the good, and the pupils come back with minds refreshed prepared again to tackle whatever tasks are put before them. A change from abstract work to concrete work, even if the change lasts so long as a week, is good for both kinds of work. Actually in the handicraft rooms the change is not complete, since the pupils there continue to have their minds directed more or less informally to the other subjects on the time-table. Arithmetic, Writing and Printing, Oral Composition, Drawing and Observation work are all used from hour to hour in the handicraft rooms, and often History and Geography as well incidentally.

There is plenty of good physical exercise in Hand-work, but this is supplemented by the formal lessons of Physical Culture, since the pupils always leave the handicraft rooms when it is their turn to receive instruction in that subject. However cogent the reasons against the intensive system of teaching Handicraft may appear to the opponents of it, those in its favour are far stronger. The pupils in their last two years at school are engaged on large pieces of work in teams, and in spite of

the hearty and willing co-operation of the members of the teams, they cannot possibly complete in half a day or in a day whatever it is they have taken on, and it is not advisable that the constructive work shall be spread over ten weeks or even five weeks with consequent loss of interest, risk of damage in the interval, and general congestion in the storeroom. Work started by one team should be finished by that team if interest in it is to be maintained or even if the wished-for results of the teaching are to be attained. Moreover, in his third and fourth years a pupil might well begin to learn that it is sometimes advisable or necessary to stick to a task until it is finished.

He will have to do it after he leaves school and he might with advantage have some practice in it before he leaves school. Whatever his final avocation, he will not be able to get a change or a rest every three-quarters of an hour or every hour or even every half-day. He may wish he could, but the conditions of high-speed industry will not allow it. If he is to have some preliminary practice in continuous work, there is no better subject than Handicrafts for him to start it on, since he loves the work, and finds pleasure in exercising his technical skill, in creating new forms, and in triumphing over resistant matter whether in the form of wood or metal. After this practice which he has enjoyed, he will be more prepared to tackle other continuous tasks, not quite so pleasant, which may fall to his lot in the next stage of his life. The continuous week of Handicraft instruction is superimposed on the school time-table and therefore makes it a little easier to draw up the time-table and to fit into it all the specialists and their varied work. The pupils enjoy the week's work, possibly partly because it is such a contrast to the rest of the school work, or at any rate to that not too interesting part which deals with abstract notions. There is less trouble in gaining a mastery of the tools, since there is less time to forget, when the tools are used fairly continuously throughout the whole of one continuous week. Presumably those who teach under the Dalton Plan are

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aware of the fact that pupils, left to work out for themselves their own assignment of work, do not take a bit of this subject for half an hour, and then a bit of that subject for the next half-hour and so on. They do not show any marked desire to adopt the tit-bit method of study, but as a rule they prefer the intensive plan. *Verb. sap.*

In the first two years of Senior School life, each class should divide its Handicraft allotted time equally between Woodwork and Metal-work, and thereafter the pupils should be given some degree of choice as to whether or not they shall devote the greater amount of the allocated time to one subject instead of equal time to the two subjects. From the educational point of view there can be no objection to this specialisation on Woodwork or Metal-work in the last two years. There is something to be gained by allowing a pupil to be to some extent a free agent in deciding his own course of study.

When a Senior School contains eight classes or less, and when the accommodation provided in the school necessitates the continuous use of the handicraft rooms for a full class of forty pupils, the scope of the Handicraft work should be extended, or otherwise the whole school or some of its classes will have to spend considerably more than one-tenth of the total school time on the traditional woodwork and metal-work. However valuable that work may be educationally, it is extremely likely that the pupils would profit more if they could spend some part of this time in the handicraft rooms on some craft other than Woodwork or Metal-work. There is no administrative reason why, for instance, Book-crafts, including Lino-cuts, should not be taken in the handicraft rooms. This presupposes that the teachers of Handicraft are expert in crafts other than Woodwork and Metal-work: Those teachers who have been craftsmen before they entered the teaching profession may be chary of taking on this work without some additional training, but those certificated teachers who have received their Handicraft training in colleges which specialise in Handwork should have no

difficulty in tackling Book-crafts successfully, and the others can well be asked to get qualified by attending special classes.

Even in Senior Schools, where not more than one-tenth of the school time is spent in the handicraft rooms, Toy-making might well be included in the instruction, since it trains the hand and eye excellently and also to some extent the sense of colour, and in addition gives the pupils another spare-time occupation requiring little expense in tools and offering some possibility of later financial reward. It is more difficult to introduce fresh crafts into boys' schools than into girls' school, and in all probability this hesitation on the part of the boys' Senior Schools is due to innate conservatism, which affects boys' schools always more than girls' schools, another argument in favour of single-sex schools. Pottery, for instance, succeeds in girls' schools but is looked at askance in boys' schools. It is a "messy" craft, and should have a room of its own. Usually one is provided for the kiln, but this is in order to avoid too rapid cooling. The workers in clay, and even the potter's wheel, are generally put into the art room or the craft room, and the consequent soiling of their floors does not meet with the approval of the Art and the Craft teachers or of that important member of the school staff, the caretaker. It need not be a matter of surprise that schools, which start enthusiastically on Pottery, gradually cool off in these circumstances, as soon as they have got a few samples of their work to show to admiring visitors.

If a Senior Girls' School adjoins a Senior Boys' School, arrangements may well be made for occasional attendance of the girls at the woodwork room in the boys' school to receive some instruction in Woodwork, with special reference to their upholstery, the boys so displaced taking Cookery in the Girls' Domestic Science Rooms thus temporarily vacated. This system has been followed successfully in the Nottingham Senior Schools during the past few years. The girls in this way have

gained some experience of handyman's work and the boys have discovered that both skill and accuracy are necessary for success in culinary operations. Resulting from the success of this experiment has been the provision of a fully equipped woodwork room in a Senior Girls' School, and of a cookery room in a Senior Boys' School, and it is only the lack of the essential accommodation which has prevented the further extension of this system in the Nottingham Senior Schools.

## Home Crafts

THE Senior Schools have taken or are taking over from the Domestic Subjects Centres the two Home Crafts, Cookery and Laundry-work, with all the varied problems connected with their instruction, and they seem inclined to adopt unaltered the practices followed in the Centres from which their pupils come, instead of making a careful examination to ascertain what changes, if any, are necessary to suit the altered conditions. The conditions have actually altered considerably, and for the better, by the transfer to the Senior School premises from the Centres, since the two subjects are no longer isolated from the other subjects on the schools' time-tables, and now form an integral part of the school curriculum, with their teachers full members of the schools' staffs.

There would have probably been little objection to the schools copying the practice of the Centres, if the Centres had been all run on one common plan, but, as a matter of fact, there was no one agreed policy followed by the various Centres. They did not even admit their pupils at the same age, since some admitted them at ten and a half, some at eleven years, some at twelve years, and others as late as thirteen or thirteen and a half years of age. In some Centres the pupils attended for one half-day each week, in others for two half-days each week, or each alternate week. The length of the lessons varied from two hours to two and a half hours each, and the courses were spread over periods varying from six months to four years, so that the number of hours' instruction received by a pupil varied from less than fifty to over four hundred. It was quite evident that the age of entry to the courses and the number of hours of instruction given to a pupil depended simply and solely on the amount of accommodation available and not on any accepted theory as to the proper amount of time which a senior girl should, on educational

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or vocational grounds, devote to the study of the two subjects. Not only were there these curious differences in the age of entry, length of courses, and times of attendance at the Centres, but there was not even agreement as to the proper division of time between the two subjects, Cookery and Laundry-work. In some cases the time was divided equally between the two subjects, while in other cases twice as much time was given to Cookery as to Laundry-work. The decision depended on the kind of accommodation provided. If the two subjects were taught in two separate rooms, each in its own specially equipped room, then the time was divided equally, but if they were taught in the same room equipped for both subjects in combined courses or in separate courses, Cookery received twice as much time as Laundry-work had to put up with. In some districts Housewifery was taught in the last year of school life, but even in its teaching there was no uniformity. In some cases it was taught in an unoccupied flat, attached to the school, and the girls were called upon to do work which was obviously unnecessary in the cleaning of clean rooms and in making beds which had never been slept in, or the flats were used for so-called social purposes so as to give some sense of reality to the cleaning work. In other cases it was taken in a house some distance from the schools from which the groups of girls were drawn, and the house was occupied by one or more teachers, for whom the girls did most of the housework and the cooking. In the unoccupied flats, the attendances of the girls were on the same lines as those adopted for the Cookery and Laundry-work Centres, namely half a day a week or a full day each alternate week. In the occupied houses the girls attended on the intensive and more sensible and effective plan, namely from one to six weeks consecutively. In both cases the attendances at the Cookery and Laundry-work classes were suspended while Housewifery was being taken.

From such confusion of practice there is nothing of any educational value to be drawn, which will give a

reliable guide to future policy. There seems in the past to have been little educational thought given to the teaching of Home Crafts. By educationists they were looked upon as interlopers in the educational world and were left severely alone in their little Centres to sink or swim. Now they are in the limelight and have to prove their educational value, and not merely their vocational, if they are to receive any considerable amount of the school time for their study, when there is so much demand on it from other subjects. The whole question is complicated by the fact that the content of the syllabuses of the Home Crafts tends to become more comprehensive as time goes on. There is also a request that the sister subjects, Dressmaking and Needlework, shall be brought into closer contact with the teaching of Cookery, Laundry-work, and Housewifery. Far more attention is now required to be paid to the underlying principles, and this presupposes that Science (including Electricity and Magnetism) in its application to Home Crafts will not be left out of consideration when instruction in Home Crafts is being given. Dietetics, Home Nursing, Infant Welfare, First Aid, Hygiene, and Physiology are all pressing for admittance to the Home Crafts course and are not content to be left to other teachers on the staffs of the schools, whatever their qualifications.

It is feared by those who are now befriending the Home Crafts that if these subjects are not taken by the Home Crafts teachers, they will be treated too academically and their practical applications to the Home Crafts will not be duly emphasised. This demand for the greatly increased scope of the Home Crafts courses, or rather of the work to be taken in the Home Crafts rooms in the Girls' Senior Schools, is based partly on the old and exploded idea that Home Crafts are best isolated in a Centre away from all other subjects and partly on a distrust of the specialist system. It should be obvious to all that if the Home Crafts teachers are actually to teach all these additional subjects, they will have less time to

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devote to the training of the manual skill in the practical crafts, Cookery and Laundry-work, unless their numbers are greatly increased on the staffs of the schools. It is not at all likely that it will be possible to increase their numbers to any large extent. Already the supply of teachers with full training qualifications in Home Crafts is much less than the demand, and the Board of Education are very loath to sanction any increase in the supply from the training colleges. Even if a sufficient number of teachers with Home Crafts training could be obtained, their knowledge would not qualify them to tackle satisfactorily all the subjects allied to Home Crafts which it is suggested shall be included in their courses. The Home Crafts teachers should have the chance of discussing with the rest of the staff of the school the whole scheme of work for the school. There should, of course, be as little overlapping as possible, and there should be no conflict of testimony.

Everything possible should be done to break down compartmental teaching. Where time allows, the Home Crafts teachers should be allotted some part in the teaching of subjects not generally comprised in the Home Crafts courses, such as English and Physical Culture. Such experience shows to them more effectively than many lectures how closely the various subjects on the time-table are interwoven.

Incidentally, the wider knowledge so gained breaks the bonds that have hitherto confined the Home Crafts teachers to their special work and opens the door to the prospect of posts of greater responsibility. Without wider experience than that which has up to the present fallen to their lot, they have little chance of having their applications for headships seriously considered by Local Education Authorities or by managers of schools.

One of the Home Crafts teachers in a Senior School might well be given the oversight of the Needlework and Dressmaking and she might receive as a reward for her extra responsibility an annual payment from the

“Pool.” This would not necessitate that she shall actually teach the subjects, but her special training and experience should be of great value in the drafting of the syllabuses and in the arrangement of the work. Practical Science should not be taken in the Home Crafts rooms in those schools which possess properly equipped Science rooms. Some experiments may have to be performed in the Home Crafts rooms, but these should be confined to those required to demonstrate the reasons for some of the operations which are being carried out or for recipes which are being recommended and the results which would accrue from neglect in observing instructions given, e.g. the effect of leaving a yeast mixture in a warm place, or of adding water to baking powder, the separation of gluten from flour, the effects of hot water, soda, and lime in solution on fats, the removal of stains, the reasons for the practice of putting peeled potatoes into cold water and new potatoes into hot water, etc. Experiments in Chemistry, Physics, and Physiology are out of place in the Home Crafts rooms. They should be entrusted to the Science teacher, when there is one on the staff, and her work will not become of less interest to the pupils or have a lower educational value when it makes plain the Whys and Wherefores of practical operations in everyday life. The Science scheme will in the ordinary course include Elementary Chemistry and Physics, including Electricity, and also Biology, and the Science specialist will keep in mind when drawing up her schemes of work the requirements of the other subjects on the time-tables, and there are other subjects in addition to Home Crafts which call for the aid of the Science specialist. Moreover, it should be borne in mind that Hygiene and Physiology are required as much by boys as by girls, independently of any Home Crafts courses. If Infant Welfare, or rather the Care of the Toddlers, is to be undertaken in the school course, it cannot be confined to mere lectures, however illustrated. There must be some practical demonstrations, which could well be given in a neigh-

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bouring Nursery Class. In any case, whether the demonstrations are given with a life-sized doll in a classroom or with the young children of the nursery class, the work should be left to the last year of school life.

Bearing in mind the fact that the school is a co-operative society in its teaching as in other respects and that all subjects in a properly organised Senior School will be co-ordinated and correlated, it should not be necessary until the last year, at any rate, to give more than one-fifth of the total school hours in a Senior Girls' School to the direct teaching of the Home Crafts, including in this term not only Cookery, Laundry-work, and Housewifery, but also Needlework and Dressmaking and Upholstery. There will, of course, be in addition to this one-fifth a great deal of instruction with application to the Home Crafts given in the Art Room, the Geography room, the Science room, and in the teaching of practical Mathematics.

The object of the teaching is not to turn out the complete housewife, but to give the girls an intelligent and practical interest and insight into the successful running of a home, and in so doing to help them to develop the qualities of self-reliance, adaptability, and good judgment. They may not, on leaving school, have immediate opportunity of practising all they have done in their lessons or of applying to their daily occupations all they have learnt in school, but the object of the school is to turn out thinking and reasoning beings and not perambulating encyclopædias, gramophones, or robots. It is no great matter if they do forget in the interval before they become responsible for the conduct of a home many of the things they have learnt at school or if their manual skill requires refurbishing later. The training they have received will show its value as soon as occasion arises for the application of its underlying principles.

While it is not wise to spend an inordinate amount of time on the teaching of the Home Crafts, it is unwise to postpone its introduction to the second year of the Senior

School course. The work should begin as soon as the pupils join the school, but the introduction should be to the crafts in general and not merely to one in particular, nor should the introduction be, as in the past, confined to the least interesting and the more laborious parts.

Cookery and Laundry-work have in the past been begun in the first year in those Senior Schools that had sufficient accommodation to make such a practice possible. The pupils have enjoyed the work and have certainly retained their interest throughout the whole course, whether it has been spread over three or over four years. Now that the age for compulsory attendance at school is being raised to fifteen years, it is being suggested that the Home Crafts courses shall start in the second year to save the pupils from boredom in the last year and to enable more time to be spent on academic work in the first year in the Senior School. There would be little objection to the postponement of the introduction to the second year, if other practical subjects of equal educational value to the Home Crafts were to be taken in that year instead of the Home Crafts, but it is doubtful whether this would be the case. The tendency would be to concentrate on the academic subjects in order to remove the differences that exist in the preparation for the Senior School work received in the contributory Junior Schools. Concentration on academic work is not necessary for this purpose. If there are important differences in the work of the separate Junior Schools, they should be discussed in conference and attempts made to get greater uniformity of practice.

In the first year of Senior School life there is some strength in the argument that the lessons should be shorter than they will be later, but it does not make it advisable to spend less than a half-day at a time in the Home Crafts rooms. The courses should be mixed courses, and it is not essential that the pupils in the rooms shall be all engaged in a similar operation or with the same branch of the Home Crafts. It is seldom in a

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house that the whole attention of the housewife can be concentrated for long on a single operation, and there is no particular reason why the work in a Home Crafts room should differ radically in its arrangement from that of the home itself. In the second and later years there should be more continuity and less scrappiness about the work.

In order to make it possible to finish off operations and not to have to leave them, uncompleted, in interesting and instructive stages, the whole day of two complete sessions should be spent by the pupils in the Home Crafts rooms, but not necessarily in the performance of work in connection with a single branch of the Home Crafts. Some old-fashioned administrators demand that the two half-day lessons shall be separated from one another in the week by a considerable period, say, two days if possible, since they fear that the pupils will forget what they have learnt if the lessons are separated from one another by so long a period as one week. They need not worry their heads about such an idea as that, since pupils' memories are not so short as they think, nor is manual skill lost as quickly as they imagine. Moreover, girls are kept in close contact with the various branches of house-work in their own homes, and the work is never absolutely strange to them. Instruction in one subject is supplemented every day by the teaching in other subjects, which though differing in substance employ the same methods for driving home their points. Even when, as in the Senior Schools in the City of Nottingham, the whole of one week is spent in the Home Crafts rooms by the pupils four times a year, there is no sign of rustiness either in their other work which they have left for a week or in their Home Crafts work to which they return after an interval of eight or nine weeks. So far as Home Crafts are concerned, rustiness could not possibly occur, since the girls at home are constantly and practically reminded of all the problems and operations they have to deal with in their Home Crafts work at school. In the last year of

school life, when Housewifery is taken, the intensive system of teaching it should be adopted, and the work should be taken in an occupied house, as in such a house the work will be carried out in conditions identical with those in a home. The house may have to be at some distance from the school buildings, but that need not be looked upon as a disadvantage. The school will be losing the pupils so far as full-time instruction is concerned in a short time, and it will wish to keep some kind of connection with them even though they are not still under their direct care. Some sort of daily contact can be kept with them during the weeks they are at the house where the Housewifery instruction is being given, and this contact can be used as a trial trip for the time soon to come when the separation from the school will be officially complete. The obvious defects of the former Centre system have so alarmed educationists that they are now deadly afraid of any move which would take pupils away from the school premises to some other building, even when the necessary instruction cannot effectively be given at the school. The flight from the Centre system has become a panic.

If Housewifery is to be taught at all, it should be taken seriously, and this can hardly be the case when an unoccupied flat on the school premises is its home, since there either the girls must be set to do tasks obviously unnecessary, or some more or less artificial use of the flat must be invented to provide excuse for the various operations which the girls are required to carry out. The girls in their last year should have some experience of continued application to one occupation to prepare them for what is in front of them, and the intensive system of teaching Home Crafts gives them a good example of this. The girls should attend for Home Crafts instruction during complete weeks, and in each of those weeks should have practical experience in each of the Home Crafts. The conservative opponents of this intensive system say that it breaks the continuity of teaching of the academic

subjects, but so do the holidays, from which the pupils actually return with increased zest for their school studies. A similar freshness is noted when the pupils once more take up their studies of other subjects after their week of continuous Home Crafts work, during which they have actually had frequent opportunity of applying in their practical work things they have learnt in other kinds of lessons. After school days are over and the only further formal instruction they can get will be in the evenings, their studies must be of the intermittent kind, since they will attend their classes only on two or three of the seven evenings in each week during the winter and spring, and there is no great objection to giving them in their last two terms at school a gentle foretaste of this system.

In their last year at school, the longer periods in the Home Crafts rooms will give the girls a chance of experimental shopping and pricing, and of preparing and cooking well-balanced meals, but this will not necessitate troubling their heads with abstruse theories on formal Dietetics. Some simple information on food values and some hints on correct feeding should be given to them as a rough guide to the preparation of well-balanced meals, but the more advanced instruction can well be left for the Evening Classes especially adapted to the needs of adults.

Throughout the whole course of instruction in Home Crafts care should be taken to see that the time is spent to the best advantage, since this has not always been the case in the past. Some unwise and ultra-economical Local Education Authorities have used the Home Crafts rooms and equipment not merely for their proper purposes, but also for the provision of meals to necessitous children and for the actual serving of those meals. They excuse themselves for their parsimony by saying that it gives useful practice to the pupils and causes them to have sympathy with those less fortunate than themselves. The cooking of those meals no doubt does give practice, but certainly not sufficiently varied practice. Obviously, the

syllabuses of the instruction must be made subordinate to the menus of the feeding Centre and much of the time and attention of the instructress must be given to the preparation of the meals when it ought to be given to her pupils. What these unwise Authorities save on the expense of the Provision of the Meals for Necessitous Children they lose in the effectiveness of the Home Crafts instruction, and incidentally they cause the girls to be bored stiff with the constant repetition of the same operations. No wonder those Authorities are so ready to maintain that it is not advisable to begin the instruction in Home Crafts at eleven years of age or to spread the instruction over more than two years, since with their organisation one year with Home Crafts would be quite sufficient to develop the invited distaste for the work.

Other Local Education Authorities economise unduly on the cost of the materials used in the Home Crafts classes, and if there is a loss of as much as fifteen per cent. of the gross cost of the materials ordered and supplied, they make as much trouble for the unfortunate teacher as if her action had sent up the rates by sixpence in the pound sterling. They practically compel the pupils to bring the materials they will have to use, even soap, though they know quite well that if the pupils supply the cookery materials, for instance, the teacher must see to it that no wastage takes place in the preparation and cooking of the food, and that this invites rule-of-thumb teaching and forbids teaching by the method of trial and error. Where losses are severely frowned upon by the responsible Authorities, the teacher is induced to use small quantities to minimise losses, and also to spend an undue proportion of the time in the cooking of pastries and cakes which have a ready sale at a slight profit, whatever may be their nutritive value. Such Authorities are the first to point out the unsatisfactoriness of much of the Home Crafts teaching in the schools of their respective areas, but they are still not prepared to enable the Home Crafts teachers to carry out their work in the proper manner.

An undue proportion of time is often spent in the taking down of copious notes, though, obviously, it would, in the long run, be more economical to provide the girls under instruction with printed recipe books. In their own homes they will have to refer to such books, and it is only right that they should have practice in using them while still at school, and in the last two terms they should be allowed to work from such recipe books with the minimum of aid from the teacher. They will soon have to work quite independently and will be more successful in this if they have already had some practice in semi-independent work in school. Such semi-independent work is difficult to arrange, if Local Education Authorities set their faces against anything that might possibly cause a deficiency in the accounts for Home Crafts instruction. How far the syllabus of instruction should be effected by local circumstances is a moot point. The instruction is not intended merely for local consumption, since the pupils are not all likely to remain in their districts all their lives. In Cookery, of course, it is advisable to make full use of materials of which there is a cheap local supply, but it is not advisable to confine the materials to those which are generally used locally, since real economy may suggest a change from local customs, however difficult these may be to change. The teachers will be wise to obtain all possible knowledge of local conditions in the first instance and then to build up the necessary reforms on that knowledge. Teachers have always worked from the known to the unknown, but they have not always given their pupils credit for the knowledge they actually possess, and so there has been too much insistence on certain operations, such as blackleading and scrubbing, merely because they appear in certain places in the syllabuses and not because the pupils are not already efficient in them. The syllabuses should be related to the social and environmental conditions of the pupils, but should also aim at widening their horizon. The home conditions may not be all that they should be,

and the Home Crafts should try to improve them where necessary by making the best of existing customs and inciting their pupils to make excursions to fields of wider endeavour.

#### NEEDLEWORK AND DRESSMAKING

Whatever may be the final decision in any particular school as to the proper time for beginning instruction in Cookery and Laundry-work, there will never be any question raised about the advisability of continuing the teaching of Needlework and the beginning of Dressmaking at the earliest possible moment in Senior Schools containing girls. Needlework has always had given to it two hours a week throughout the whole of the Junior School life, though owing to mistaken policy it has not until quite recently had the opportunity of making full use of the time that has been allotted to it. There has been in the past too great and too constant an insistence on stitchery for stitchery's sake, whatever that may mean, and too little attention to its practical application. Now in the Junior Schools the pupils are rightly allowed themselves to plan, measure, and prepare in paper the patterns of the articles they are to make and then to cut out the material in accordance with those patterns. The child begins to knit at seven years of age, and starting with knitting cotton she knits something she can use, e.g. a small duster for her own desk. When she can knit without dropping stitches, she is given a pretty shade of wool, and, promoted to fancy stitches, knits various patterns, and from these she proceeds to shapes, knitting, for instance, a doll's outfit to fit a doll. Sewing is begun with coloured embroidery cottons and pretty materials, and they plan and cut out the articles to be made with large and decorative stitches. They choose themselves the articles to be made, since the article is of first importance and the stitches secondary. No longer are they expected to work with blunt scissors, merely because they are the cheapest that can be bought. In the past too much stress

was laid on hemming, a rather difficult stitch to teach, but not so now. If the child finds difficulty in hemming, she is now allowed to use easier stitches until her fingers are more skilled and she is able to sew with rhythm. She is no longer forced to make garments with long seams. She is taught in the early stages that the fit is of great importance and that trying on must be practised. She learns the cost of the garment approximately before she starts to make it and so finds use for Arithmetic.

All this forms an excellent foundation on which the Senior Schools can build.

In the first year of the Senior School, machining starts with the hand and then passes on to the treadle-machine. By the end of the last year all the pupils should be familiar with the use of the electric sewing-machine.

Garment-making can at once be undertaken, based on both drafted and bought patterns. Well-made garments of good cut and style should be examined and discussed with the class before patterns are made, and practice in fitting and in correcting after fitting should be given. The Needlework teacher should not try to compete with the cheap Stores. Only the garments that the girls need should be made. Pretty materials should be chosen and as wide a choice as possible given to the pupils, but good workmanship must be insisted upon. Art in relationship to Needlework should go beyond design and colour in decorative stitchery. It should stimulate interest in style and pattern lines, good taste in dress, suitability for purpose, good taste in soft furnishing, etc. The pupils should have experience in manipulating and stretching woollen garments, and should be encouraged to make for themselves with as little aid as possible from their teachers the dresses they will require when school days are over. In her last year each girl should be able to draft a block pattern to fit herself, to adapt it to obtain a simple but fashionable style of dress, and to cut, fit, and make up a dress of woollen materials.

## Music

THERE is no subject on the school time-table that has more reason than has Music to be thankful for the establishment of the specialist system of teaching in Senior Schools. No longer is the class teacher with no music in his soul or at his finger-tips called upon to cultivate the musical taste of his pupils, to train their ears in pitch and rhythm, to teach breathing and enunciation, and to enable them in singing to find the lost chord. The call for the specialist was not so loud in the past when every teacher from a training college could play the piano and had some knowledge of both the Tonic Sol-fa and the old notation, but those are days long past. Since then, intending teachers have been educated in Secondary Schools, where Music has been ousted from the curriculum by the requirements and the pressure of the School Certificate Examinations. Practically the only music teaching which intending teachers receive during their Secondary School careers is that which can be squeezed in out-of-school hours in the all-too-short intervals left by the excessive homework. This incidental and accidental discouragement of Music has the effect of limiting its study to the comparative few who have a natural gift for it, which would not be denied, and who belong to families who have a real love for music.

The training colleges have little chance of making up the ground lost during the eight years of Secondary School life, and seldom try to perform the impossible. The great majority of young teachers, therefore, have neither the necessary training nor the desire to teach Music to their respective classes, and even the Infants' teachers, specially trained for their work, are often incapable of even strumming on the piano, though music forms a marked and important feature in the teaching of infants. The specialist teacher, therefore, during the last ten years or

more, has been taking more and more responsibility for the teaching of Music in each of the three departments of Elementary Schools, Infants', Junior, and Senior, to the great advantage of the subject and its pupils. This change has also led, incidentally, to the unification of its schemes of instruction and of its proper gradation from the infants' classes to the highest classes in the Senior Schools. In the past there was variety in the teaching which was neither charming nor advantageous. Unification was possible in a single department if the head teacher of that department was interested in the subject and expert in its knowledge. Otherwise each class teacher adopted his own peculiar method of teaching it, unless an inspector with knowledge and a forceful method of expression managed to drive home the fact that music teaching must be based on the co-operation of all the teachers concerned with its instruction not only in one department of a school but in all three.

With the services of the specialist found absolutely essential in the junior departments, it was obvious that in the senior departments Music had to be given over to one teacher with high qualifications in the subject. The power under the Burnham Scales of Salaries of making additional payments out of the "Pool" to such teachers has enabled most Senior Schools to attract really well qualified teachers of the subject. Unfortunately, the number of such qualified teachers is still very small, and consequently the whole of the singing even in a large Senior School has to be consigned to one teacher, no doubt to the advantage of the subject, but not necessarily to that of the specialist. The teacher has the satisfaction of knowing that his subject is taught as he wishes it to be throughout the whole school, and he sees his choirs carrying off prizes at Musical Festivals and he receives praise for their successful performances at Prize Distributions and at other functions, but he has to be content with the reward of work well done and not nurse any hope of promotion to a headship, where his enthusiasm and ability might affect

other subjects in addition to Music. Local Education Authorities have not yet appreciated that a teacher who has been extremely successful as a teacher of Music and a conductor of choirs would also be likely to become equally successful as a head teacher if he were granted promotion. It is to the advantage of the Music specialist that he shall be granted the privilege of taking some other subject during part of the school hours and that he should delegate part of the Music teaching to another teacher, perhaps not so highly qualified in Music as himself.

The standard of Music has undoubtedly been raised very considerably in late years in Senior Schools. The services of the highly qualified specialist, of course, accounts for much of this, but he has been helped in his work by being able to make his choice from a large number of pupils for his choirs, his solos, and his orchestra.

As a rule, the instruments for his orchestra have had to be provided at the expense of the parents of his pupils. It is seldom that instrumental music obtains an official place on the Senior School time-table, though the presence of the orchestra is semi-officially welcomed when the choir is practising in school hours and also at school functions out of school hours.

The provision of orchestral instruments has always presented a difficulty to Local Education Authorities, and they have some good reason for their hesitation in supplying them. There is no apparent advantage to be gained in teaching a pupil to play an instrument if he is never to possess one of his own, and therefore must discontinue playing it for ever as soon as he leaves school. His time could have been spent to greater advantage in some other occupation of an æsthetic nature. Moreover, the actual possession of an instrument, the purchase of which has involved some pecuniary sacrifice on the part of a parent or pupil, is a sign of interest and a promise of continuance, and consequent improvement in skill, over a period.

If the instrumental training were officially recognised in school hours, it would not be easy for the Local Education

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Authority to refuse to supply the necessary instruments both for those who could afford their purchase and for those who could not. So far they have not yet attained to this state of wisdom, and so they do not place instrumental music on the time-table. They consider that they have done all that is required from them so far as Music and Musical Appreciation are concerned when they have supplied pianos and music, provided radio-grams, and/or gramophones, and have fitted up the schools with radio-diffusion.

They do at times also make arrangements for limited numbers of their pupils to attend orchestral concerts in school hours and to receive on such occasions lectures from experts. Some Local Education Authorities also give grants to their Music specialists to enable them to attend special courses for conductors of choirs and for teachers of Music.

The actual training in instrumental music is generally left to private effort, though free use of rooms out of school hours is usually granted for classes arranged for pupils attending Public Elementary Schools. It is to be hoped that it will not be long before the present difficulties will be resolved, and instrumental music will be allowed to appear on the time-tables of Junior and Senior Schools. It has already forced its way on to the Secondary School time-tables, which are far more overcrowded than those of Senior and Junior Schools, and the pressure towards the Elementary Schools becomes greater every day. Orchestras exist in many Senior Schools already. In the Infants' Schools the percussion band is on the time-table, and Education Authorities pay for the instruments. It passes up to the Junior Department where it runs, side by side, with the pipe band and the string orchestra. The string orchestra goes on to the Senior Department and is there supplemented by the wood-wind and brass instruments. With the standard of Choral and Instrumental Music rising higher and higher in the Senior Schools each year, it would naturally be

expected that boys and girls on leaving school would continue the good work and join existing choral and orchestral societies, but unfortunately few of them do so. Even in Evening Institutes entries for Music classes are not numerous. Whether the classes are held on the premises of the Senior Schools which possess successful choirs and orchestras and draw their members from the immediate neighbourhood of the school, or whether they are held in the rooms of juvenile organisations, the result is just the same. There is considerable difficulty in filling even the few classes that are started. The fault does not seem to lie with the Education Authorities, since they usually appoint excellent teachers and admit the students to the classes at a very low fee. It is not due to any objection on the part of the students to coming back to their old school premises in the evenings, since they go there in great numbers for other subjects in which they are interested or which are of advantage to them in their respective occupations.

In the case of boys it might be said that they consider singing harmful when their voices are breaking, but no such reason applies to girls, nor could it affect the orchestral work. It is to be regretted that something really effective cannot be built on the excellent work of the schools' choirs and orchestras, something that would make the English as interested in Choral Singing, for instance, as are the Welsh. Apparently Wales cannot give the necessary prescription from the results of their experience, since their Choral Singing did not have its rise in the Public Elementary Schools, but, like Topsy, "it wasn't borned; it growed"—and so did the brass bands of the northern towns. The school choirs and orchestras should be linked with existing societies, which at present cater for adults exclusively and do not concern themselves with the adolescents. The absence of this linking up is as much the fault of the schools as of the societies. The schools pride themselves on their successes and do not trouble themselves much about what will happen to their pupils from

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the musical point of view after school days are over. They are content if their pupils get a good start in life so far as employment is concerned, but they do not think it necessary to bother about what may happen to their æsthetic future, and they let that take care of itself. This is not a question which affects only Senior School pupils. It affects also the Secondary School pupils, who leave school at a much later age. A combined effort is required. Old Boys' and Old Girls' Associations and Social Centres, which have juvenile sections attached to them, should be roped in to take an interest in the movement and be asked to start something which will fill the gap that now exists between the schools and the societies which cater for the musical tastes of adults. At present the position is very disappointing, and will continue to be so as long as the musical education "stops short, never to go again" when pupils leave their respective day schools.

## Physical Culture and Hygiene

LOCAL Education Authorities are being encouraged to improve the facilities for Physical Culture, especially in their Senior Schools, and not before time. The value of the various forms of Physical Training (gymnastic exercises, games, swimming, dancing, and boxing), in contributing towards the health and well-being of the people, is now emphasised daily by means of official circulars, by inspired articles in daily papers and monthly magazines, by posters, and by official approval of expenditure on erection of gymnasia and on the purchase of playing-fields, and there is hope that the campaign for health may include promises of increased financial contributions from the central exchequer to Local Education Authorities for the purpose. All that is to the good. It is not merely advisable, it is absolutely essential that Senior Schools shall pay serious attention to Physical Training, not only to enable sane minds in sane bodies to tackle successfully the academic and practical work of the Senior School, but also to prepare the bodies and minds of the pupils to wage war against the troubles and anxieties they are sure to meet in the next stage of their existence, when they will be engaged in earning a living in a world not too sympathetic to the physical needs of young life.

It is well that gymnasia with their changing-rooms and shower-baths are being erected and that additional playing-fields are being purchased. It is well that playgrounds are being enlarged and their surfaces covered with sets or asphalt. Many are so small that they cannot answer their nominal purpose. They are mere airing-grounds in the so-called recreation periods. Many are mud-baths in winter and dust-baths in summer. It is well that light and air are being admitted to the gymnasia as well as to the classrooms. The Senior Schools will reap

the benefit of these improvements, and their labours to strengthen the physique of their pupils will to some extent be lightened. These facts may be noted with pleasure, but what is not so pleasing is the preparation, or rather lack of preparation, in the Junior Schools through which the pupils pass before they join the Senior Schools. At present it seems as if the Junior Schools are expected to foster physical defects in order to give the Senior Schools practice in removing them. "Black list" schools are still to be found even in districts where great improvements have been made in the accommodation provided for the advanced instruction of senior pupils and in the facilities for their physical training. The total number of actual "black list" schools may be comparatively small, but there are, in addition, a very great number of schools which only just escaped being "black listed," and those schools do very little to prevent deterioration in the health of the pupils attending them. Bad lighting, defective ventilation, and inadequate heating systems, conducive to closure of windows and the exclusion of pure but cold air, are far too common. Backless, uncomfortable desks, too high or too low, with too great a gap between seat and desk-top, have furnished the classrooms but not accommodated the pupils. The pupils may receive each week lessons on Physical Culture of an hour's duration, but the good effects of these lessons must be undone by unsuitable posture in the school desks in the remaining school hours. There is in this some resemblance to the Labour of Sisyphus. The health rolls downhill in the unsatisfactory buildings of the Junior and Infants' Schools, the descent being braked to some extent by the School Medical Service, and the School Canteen, and then, later, the Senior School with its more modern equipment, but with its all-too-short life is expected to push it up to the top, hampered in its task in many cases by heredity and the unsatisfactory home conditions of its pupils. In very many cases far more immediate good would have been done if the provision of the gymnasium for the Senior

School had been postponed for a while and the money which would have been required for its erection used for improving the lighting and ventilation of the contributory Junior Schools, and the replacement of their unsatisfactory classroom furniture by dual tables and chairs of suitable heights. This was the practice followed in the City of Nottingham after 1924. Electricity replaced gas for artificial lighting in all schools, french or casement windows let in light and air, and a loan was raised to purchase new furniture to replace all that was considered unsuitable. The gymnasia, with their changing-rooms and shower-baths, came later, all the more willingly as they obviously represented another step forward in the policy already started for improving the health and physique of all the children attending the Public Elementary Schools, and not merely that of a select few.

Gymnasia when first provided tend to be used too frequently, just as is a new toy by a child, and the Physical Culture lessons are taken inside them when the weather is doing its best to invite out-of-door work and exercises. Their equipment also incites too great attention to apparatus work, no doubt with the full approval of the pupils, but not necessarily to their greatest ultimate advantage. There is always joy in achievement, and this joy is all the greater when the achievement is obvious not only to oneself but also to others. It is the misfortune of education that it cannot display publicly its results for all to see and admire, since, if this were possible, its value would be more generally recognised. It is not possible to show side by side the pupil as he is and as he would have been if he had not received and profited by a good general education, but in apparatus work in a gymnasium it is easy to demonstrate the results obtained. It is only necessary to allow a class which has been trained in apparatus work to demonstrate its prowess, and then to have it followed in the same exercises by a class of the same age which has had no such training. The difference may not represent the difference in the respective physical

condition of the two classes or the difference in the profit they have gained from the physical training they have respectively received, but that will not be understood by the onlookers or even by the members of the two classes themselves. Such a demonstration would certainly create a demand for apparatus work, with all its advantages and its possible disadvantages, and there may be disadvantages if there is no trained instructor in charge of the apparatus work. For all forms of Physical Exercises and especially for Gymnastics, the services of a fully trained teacher is required, but not always supplied. Unfortunately, it is not too easy for Senior Schools to obtain the specialists they should have for this kind of work. There are, it is true, many certificated teachers taking supplementary courses in Physical Culture with or without aid from Local Education Authorities, but the demand for teachers competent to give this instruction is still much greater than the supply. Secondary Schools for boys have awakened to the fact that it is advisable to have both their Sports and their Physical Culture supervised by teachers who are not only good at sports but also trained in the best methods of giving Physical Training, and they are increasing the demand, though not to any appreciable extent the supply. The Government's drive for Physical Fitness is also creating fresh posts for qualified teachers and so has increased the demand without, at present, increasing the supply, though an increase has been promised for some time in the future. In the meantime the Senior Schools will have to do the best they can with enthusiastic teachers with little technical knowledge. These teachers require all the expert guidance that can be given to them, and it therefore behoves Education Committees to appoint Physical Training Organisers to ensure that the teachers shall receive the essential advice and guidance and that full and proper use is made of the facilities for Physical Culture that are now being provided for Senior Schools. What is almost as urgent is the provision of a gymnasium

## *Physical Culture and Hygiene*

for those Senior Schools which are now compelled to give Physical Training in a hall which is also used for Assembly, for Music lessons, etc. This hall-gymnasium was all official sanction could be obtained for six years ago, and then not too readily, but official opinion has become a little more enlightened, and a gymnasium may now be erected in addition to the Assembly Hall. The floor of a hall used for all sorts of purposes cannot possibly be made clean enough for physical training. The drawing of a wet blanket over it just before the lesson begins lays the dust for a while, but does not remove it, and the dust, or such of it as is not carried away on the clothing or on the bodies of the pupils, will dry and rise before the lesson ends, with consequent irritation to the lungs of both teacher and taught. Physical Culture should be next to cleanliness, and it is far from it when its teaching has to share a hall with other activities and when it has to be taken in everyday dress. Everyday dress does not give the wished-for freedom of movement, and, moreover, it is bound to become soaked with perspiration and should be changed at the end of the lesson. It certainly should not be dried by the natural heat of the body. Proper gym-kit is essential if full value is to be obtained from Physical Training.

Education Committees are still chary of supplying shorts and shoes for boys and shoes and one-piece suits for girls, and of arranging for the necessary laundering, and they don't even supply storage room for the gym-kit provided by the parents of the pupils. It is very short-sighted policy to put up expensive gymnasia and then to take no steps to see that the instruction is carried on under proper hygienic conditions. Education Committees are too prone to preach Hygiene and Cleanliness in other people's houses and not to trouble themselves to see that there is the proper observation of these virtues on their own school premises. If they did, they would not only supply suitable gym-kit, but, while they were engaged on their hygienic reformation, they would dispense with

that abomination, the School Towel, and replace it by paper ones which are not likely to spread contagious diseases. Probably they are restrained from providing costumes for physical exercises by a fear that they would expose themselves to less-reasonable requests. They know that some of their pupils could not possibly afford to provide them for themselves, but they consider that the difficulty of drawing a line between the necessitous and the non-necessitous is beyond their powers and that therefore they must leave things in their present unsatisfactory state. The time may come when they will show a little more common sense, but, unfortunately for the great majority, the time is not yet—the more's the pity.

If accommodation or staffing requires that apparatus work shall be limited in a Senior School to a small proportion of the pupils, then it should be given for preference to those in their last years at school, since they are the most likely to gain the most profit from it and, moreover, if they have taken part in such exercises in their last year, they will be more inclined to join gymnastic classes in the evenings when their school days are actually over. It is, of course, essential that their Physical Training shall continue throughout their adolescent years, and apparatus work in school will tempt them to join evening classes to try to improve their skill still further in their free evenings, and, by so doing, they will build up their health and physique enough to withstand the conditions which they will experience in their daily avocations. Evening classes will be their only chance in the sunless winter months for the continuance of any Physical Training. Outdoor games are out of the question except, perhaps, on the Saturday afternoons, since Sunday games are still frowned upon, except for the moneyed classes. In winter gardening is not attractive or profitable, and dark nights and wet weather make country walks less alluring, so there remains for Physical Training merely the Evening Classes in gymnasia, and everything possible

should be done to make the existence of those classes known to the young and the older, and their advantages from the point of view of health and companionship should be brought before the pupils vividly just before they leave school to go out to work. Admission to Evening Classes in Physical Culture, whether labelled Gymnastics or Health and Beauty, might well be permitted, nay more, strongly advised to Senior School pupils during their last term at school.

However successful may be the present efforts to increase the areas of playing-fields for adolescents and adults, it is clear that there will never be sufficient to allow organised games to be played by all who wish to take part in them, and the great majority must resign themselves to be mere day-time watchers of others' prowess, as they have been in the past. Local Education Authorities should therefore see to it that full use is made in the evenings, in the winter especially, of their halls and gymnasia for recreative Physical Educational classes. Unfortunately the use of the playing-fields, purchased for day-school use, is not available for the playing of organised games by any other than day-school pupils. There has not been discovered yet a grass sward that will stand continuous use as a playing pitch without wearing through and requiring expensive returfing. School playing-fields must, therefore, be retained for the exclusive use of day-school pupils, but even with them the use must be strictly controlled and limited, since, for instance, a game of two hours in frosty weather or after heavy rain does damage that would cost pounds sterling to put right.

To spare the grass surface as much as possible, it is advisable to use the asphalt surfaces of the school playgrounds for teaching strokes and the principles of the games, so that the playing-fields may be set free for practice matches and for other forms of team work. Incidentally, this generally saves a good deal of school time, since the playgrounds are close at hand, whereas

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the playing-fields are generally a fair distance from the school premises.

Physical Culture of Senior School pupils should not be confined entirely to school hours. It should, with games, form an important part of the programme of the Senior Play Centres which meet in the evenings and on Saturday afternoons. Attendances at Play Centres act as apprenticeship to attendance at Evening Classes, later, in the next stage in their lives. The twig is bent in the way it should go when compulsion is removed. Facilities should be granted by Education Committees for use of their halls and gymnasia, free of all charges, by juvenile organisations, many of whose members are still of school age, since without the granting of such facilities the organisations cannot pay as much attention to the Physical Culture of their members as they should and as they wish to do.

## Citizenship

THE school must play its part in preparing its pupils to live happily and successfully with others and to take a proper share as citizens in local and central government. Although many educationists object to the school being turned into a training ground for any one special occupation, they make an exception so far as the life and duties of a citizen are concerned. The school should provide an apprenticeship to Citizenship, and in this it can well follow the practice of the old craftsmen in making the teaching predominantly practical, even though it may be necessary to supplement this practical teaching by academic instruction given especially in the course of the History lessons.

The government of the school affects the pupils directly. They are brought into contact daily not only with the staff of the school but with those who visit the school on official duties intent. These visitors report to and serve a number of different bodies, local and central—centrally the Board of Education and locally the various committees of the Local Authority. From these visits, interest in the history of educational administration and in its present methods of supervision and support can be aroused. As the pupils will have brought before their notice later in the Press and at Election Meetings the sources of the sums spent in the erection, maintenance, and staffing of their schools, it is very desirable that they shall learn the real facts about these matters in their school days. Then, with their more limited experience, they are more likely to be curious about such things and interested in their explanation than they will be later when they have passed out into the new and strange industrial and commercial world with its ever-changing features.

This part of Modern History can be taught without

risk of bias being imputed. From the history of education and of its present methods of control and support it is possible to pass on, through the constitution of the Education Committee, the members and officials of which are known by sight or personally, to the controlling council. Parties of the pupils can visit the public meetings of the local council, if the meetings are held in school hours, as they are in some districts. When, as is often the case, the meetings are held in the evenings, visits to the council chamber may still have their advantages. The imagination of the pupils can be exercised to visualise the chamber with its benches thronged with the members of the council in their robes. The pupils on their return to school can be called upon to recount their experiences to the other members of their class or to the whole school assembled to hear them. The recounting is more effective if made by word of mouth. Written essays may be useful as exercises in composition to show off to important visitors, but it is questionable whether the writing of them excites any great amount of enthusiasm in their authors. It is much more likely that the visit will be recorded in the pupils' minds as just another method of obtaining a subject for an exercise in composition, and much of the desired effect will be lost.

The history of local government develops from the visit to the council chamber, and this can be discussed with the class. The composition of the council, if on political lines, can be mentioned. Some think that the political principles of the various parties can be discussed, but experience has often shown that, though the description has been given without bias, so far as any human being can speak without bias, the reports of the children at home and the interpretation the parents put upon those reports so distort what has actually been said as to give rise to misunderstandings which may create difficulty to both the school and the Education Officer.

It must always be a moot question as to whether or not either local or imperial politics can safely be dealt with in

a Public Elementary School, or rather whether or not the discussion of it does not do more harm than good. The pupils may gain some useful knowledge, but the parents may be led to suspect the source of that knowledge and the co-operation between the three P's—parents, pupils, and pedagogues—may, as a consequence, not be so perfect as it should be.

The School Parliament, meeting regularly and discussing communal regulations and matters referred to it by the head teacher, can be used to give an elementary idea of the parliamentary system of this country. Such a School Parliament, if it is to be a success, requires a good deal of preparatory work, and this work can be initiated in each class by making each pupil responsible for some special duty, either the performance of small services which contribute to the communal life of the class or work of some academic value or of inspiration to its members, e.g. monitor work, the care of the class flowers or aquarium, the collection of weekly bulletin of news and its display, the marking of the daily temperature and weather reports, acting as chairman of the class concerts or of the occasional discussions, supervising the work of the class enquiry bureau, and acting as member of the class committee which organises these duties. In these ways the social growth of the child is fostered and a feeling of responsibility in the class community engendered, extending to the school community and acting as a preparation for the wider claims of Citizenship later in life.

This class community work forms a useful introduction to the Prefect System.

The Prefect System and the House System are both indirect aids to Citizenship. The House System, incidentally, is important from the educational point of view, and in fact is essential in a school staffed by specialist teachers. In such a school every pupil comes each week from time to time under the charge of several teachers for instruction in their special subjects. To avoid the

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development of a feeling of isolation in the minds of the pupils, there must be one teacher, other than the head teacher, to whom recourse can be had in any case of doubt or difficulty. This teacher is the House Master or Mistress and he or she must welcome and accept special responsibility for all the members of the House and consider reports on their successes and failures in the moral code, in academic pursuits, and in sports. The House must be so directed that its members shall become good companions and also co-operators in their school work and in their play. From this good companionship there will be infiltrated unconsciously into the pupils' minds the fact that a price has to be paid for it, and a recognition that true companionship depends on the development and exercise of such qualities as self-sacrifice, forbearance, consideration for others, sympathy in their troubles, and gratitude for benefits received, but not that gratitude which is a sense of favours to come. Addresses on the necessity for possessing these qualities, commonly called by school children "pi-jaws," have little permanent effects, while openly expressed praise at their manifestation encourages priggishness. Experience gained in the ordinary walks of life will so ingrain them in the character that they will become habits which will persist even in the hurly-burly of adult life, with its many trials and disappointments.

Practical lessons in Citizenship are incidentally taught and absorbed in school excursions and also in the school camps, if full use is made of the possibilities of government by the pupils for the pupils.

## Prizes

THE Senior School has been influenced in many ways by the general practice of the Secondary School and, in particular, in its system of awarding prizes for success in ordinary school work. It has shown a marked tendency lately to adopt the Secondary School prize system, without any modification to make it more suitable to modern conditions and to modern thought. The Senior School has very cogent reasons for conducting its Speech Day on lines very similar to those laid down by tradition from the Secondary School. The Speech Day is the school's one chance of advertisement, and its business requires advertisement as much as does any other.

The Speech Day gives the parents the opportunity of hearing the head teacher's report on the year's work, of sampling the wares of the school in the form of songs and dances, physical exercises, dramatic items, etc., of listening to an address from some distinguished visitor, and of applauding successful pupils on receipt of their prizes. The public in general, who cannot be admitted to the hall from lack of accommodation, can next morning learn from the Press reports how successfully the school is fulfilling its part in the national scheme of education.

These desirable results can be attained even if prizes are not distributed to successful pupils during the course of the proceedings. Certainly some parents attend in order to have the pleasure of seeing their children receive concrete rewards for their year's work, but since the prizes are comparatively few, and the prize-winners fewer, the great majority of the audience must attend for reasons not connected with the actual distribution of prizes. The success of the function cannot, therefore, be to any great extent dependent on the mere presence of the parents of the prize-winners. In fact, the success of the meeting might really be greater if prizes were done away

with and some more satisfactory means adopted to attain the desired ends, whatever they may be.

Educational opinion is wavering in spite of its innate conservatism, even if it has not actually made up its mind against the present system of awarding prizes to pupils for success in school work. The practice in the sports field may well be taken as a straw showing which way the wind is blowing. In school sports prizes are no longer awarded. They are considered not only unnecessary but actually harmful, possibly because they are apt to bring in the spirit of professionalism and of pot-hunting. If they can safely be dispensed with in this important part of Physical Culture, there is no apparent reason why they should be retained for other parts of the school curriculum.

The advocates of prizes for school work in Senior Schools say that the two cases are not strictly comparable, and that in school sports something is retained that produces all that is hoped for from the traditional system of giving prizes for school work. They say that though concrete prizes are not presented for successes in school sports, there are other rewards given that are highly valued by successful competitors and their respective friends and relations. There is the immediate applause from the onlookers, the successes are reported in the daily Press and recorded in the school magazine, and they count for the award of the House trophy. Moreover, there is no doubt about the victory, since it is there for all to see, and it is obviously the direct result of the prowess of the victor and does not depend on the possibly biased view of an unseen examiner. Skilful training may, of course, have had something to do with it, but all the competitors have had the same chance of profiting by that training and therefore it must be allowed that the success was the competitor's own and that he is right to be proud of his victory. Everyone admires the successful athlete, and there is no need for an award of a prize to spur him on to further successes.

It is suggested that in academic work the case is different. There is no expectation of immediate public approval of work well done, as is the case in sports, since, in fact, the results do not show up on the surface and may not show for years, and then not too obviously. Even the pupil himself may not be conscious of the progress made or of the heights attained intellectually. He is not inches higher than he was a little time ago, nor can he see that he has got far in front of his nearest competitor. Judging progress is not easy for either teacher or taught.

Naturally, applause, immediate or not, cannot always attend success in academic work, and therefore applause must be ruled out as a reward for it. Moreover, it has not been the custom of either parents or pupils to be eager to award metaphoric laurel wreaths for success in academic work, except in those cases where the attainment of high honours in an external examination or the gaining of a University or State Scholarship induces the Governors or the Education Committee to celebrate it by that gift most valued by each and every pupil, namely, that of a holiday from school work in term-time. It is advanced that pupils, being human, work better when some concrete reward is dangled before their eyes, especially when they know the reward will be presented on some public occasion for all to see, and that, once they have received a prize, they will strive all the more keenly to get another to put beside it. That prospect may well have an encouraging effect on those who have a chance of success, but they must be always the small minority. What effect will the offer of a prize for success in academic work have on the great majority who have not even an off-chance of success? That which may spur on the brilliant may act as a direct discouragement to the mediocre and the comparatively backward. If the object of a prize system is to encourage the majority of the pupils to make the most of their school hours, the present system is not satisfactory for that purpose. It may have some of the desired effect on the Haves, but it

is ineffective with the Have-nots. Even when there is more than one class in each age-range, the position is not much, if any, better. Many of the pupils in the "A" class, who have no chance of a prize, would have had a much better chance if they had been left in the "B" class, and a still better one if they had been put into the "C" class, if the prizes are given in the same way in each class. Those pupils will see pupils of the same age as themselves in the "B" and "C" classes coming up to receive prizes, while they have themselves to sit quiet and unapplauded, though they might have been able to beat those "B" and "C" class prize-winners hollow if they had had the chance of competing with them for the prizes. It is cold comfort to think that their reward is in their promotion to a higher class, since they will have later no concrete sign to bear witness to that fact. Moreover, if promotion is supposed to be sufficient reward and also sufficient incentive to increased effort in their case, why is it not thought sufficient for the others in the "C" and "B" and "A" classes who now receive prizes.

Where prizes are given to the most brilliant in a class or to those who score the most marks in an examination, not always the same thing, those prizes do not always go to the most persevering or to the most industrious, though apparently prizes are intended to induce those very virtues, industry and perseverance, and not to be mere thank-offerings for innate cleverness, due to heredity.

The prize system, as at present practised, has another great and inherent defect. It is based on the idea that pupils cannot be expected to apply themselves satisfactorily to their work unless they have before them the prospect of some material reward for work well done, even when they themselves are supposed to reap all the advantages which will accrue from their labours. If this is the case, then there must be something wrong with the system of instruction, and the pupils cannot have really been made to understand that their work in school is a

preparation for the next stage of their existence. Certainly when school days are over they will be not only expected but also required to work conscientiously without constant refreshers to keep them up to scratch.

If it would be too radical a change to scrap prizes altogether in Senior Schools which have already started the system, it would be best to confine them to Progress Prizes, though these are very difficult to allocate without risk of favouritism being imputed—but this is hardly a sufficient reason for not adopting the change. Such prizes would represent an attempt to encourage the very virtues which the schools are trying to foster and which will be of value when school days are over. Progress prizes might be replaced or supplemented by special awards for the best all-round students in the last year of school life. The conditions of these awards might be very similar to those under which the Rhodes Scholarships are given, and take into account academic work, sports, and the qualities that make for leadership, such as Scout work and Girl Guide work, and interest in school societies. All or most of these qualities are now marked in some way or other, and the marks are used in the award of some trophy or other. Such an award would carry much greater weight than any testimonial, however glowing, in the eyes of employers, and it would also do something to aid the success of school activities, the conduct of which is or should be delegated by the staff to the pupils themselves.

## Leaving Examinations

SECONDARY Schools in receipt of grants from the Board of Education have of late years been permitted to submit their pupils to two external examinations, the School Certificate and the Higher School Certificate Examinations. They have been allowed to choose the University Examination Boards they prefer, but that is as far as their liberty extends. Practically they are politely but firmly compelled to take one or both of those examinations and to leave all other external examinations severely alone.

The Secondary Schools now complain that their schemes of instruction must run on lines that will lead to success in those examinations, and that they have lost the freedom to educate their pupils in the ways they think best. Their chief grievance is that public opinion demands that they shall prepare their pupils for Matriculation and practically confine their teaching to those subjects which count for that qualification. They have only themselves to blame for this; it is not the fault of the University Boards, since those Boards have a perfect right to decide what qualifications they shall require for entry to their courses of study. The public knew nothing about the Matriculation qualifications and cared less, until the schools advertised in every possible way the number of Matriculation successes their pupils had obtained, as if those successes were a sign of an excellent education offered by the schools and absorbed and digested by the pupils. The public in general, and the business man in particular, were thus led to look upon the Matriculation qualification as the best qualification for a commercial and industrial career and not merely as the qualification for entry to a University life. Seven credits in subjects which might have had some practical use in commerce or industry still have less value in the business

man's eyes than the five credits which count for Matriculation; the reason for this is sheer and unadulterated ignorance on the part of the business man, for which the schools are largely responsible.

Probably the Matriculation qualification will be taken out of the School Certificate Examination, but this will not be of much help to the curricula of the schools. They will still have to keep in mind that some of their pupils will wish later on to enter Universities and will require to have studied at school the subjects for the entrance examinations to those Universities. The schools must, therefore, continue to lay stress on those subjects and give the necessary time to their study. The School Certificate Examinations will no doubt continue to dominate the courses of study in Secondary Schools, though they may be modified somewhat and made a little more suitable to the needs of the majority of the pupils. The number of candidates for them may, therefore, be increased in the coming years. Whatever alterations are made in their syllabuses, it is unlikely that they will have the effect of raising the average age of the candidates, and it will still not be unusual for candidates to sit for them at the early ages of fourteen and fifteen years, though the official age for the examination will remain at sixteen years plus. These examinations will not be taken because they are required by the majority of the candidates for professional purposes, but because both schools and pupils prefer to have some test of proficiency which has a national standard, and consequently a recognised national value.

This is a democratic age, offering equal opportunity for all as far as possible, and so if Secondary School pupils are to have a leaving examination for which they may sit at the ages of fourteen or fifteen, provided that they are advanced enough in their studies, and if they are to have a permanent record of their success in that leaving examination which they can display to their own advantage, there seems no valid reason why the Senior

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School pupils should not have a test of their progress and some certificate recording their success in it, especially as they will be required to stay at school in future until the end of the terms in which their respective fifteenth birthdays fall. This leaving examination for Senior School pupils must not be the Secondary Schools' Certificate Examination, since that would involve the risk of direct competition between the Senior Schools and the Secondary Schools, and there has been too much of that in the past. Moreover, the Senior Schools are still in the experimental stage, and it is to be hoped that they will always be plastic and open to change with the changing times, since times do change and the curricula of schools should change with them. Such changes as occur will not be too rapid or too radical, since educationists are too conservative and too timid to favour quick changes in courses of study. In any case the examinations for Senior Schools must not act as a clog on necessary changes in their courses of study. An examination for Senior Schools should have the virtues of both internal and external examinations, and none of their defects. The syllabuses should be wide, and a wide choice of questions should be given in each examination paper, so that the syllabuses shall not cramp the work of the schools. The examining body must be sensitive to the opinions of those engaged in the actual work of teaching and of those engaged in the administration of education. This can best be ensured by giving them the majority of representatives on the examining boards. The certificate should have a definite connection with, and a definite value in, the schemes for further education. In this way it will do something to impress on the pupil's mind that education does not cease when the day-school is left.

The Leaving Certificate holding its proper place in the series of certificates granted in connection with the schemes of Further Education will point the way to higher successes as rewards for additional part-time

study. This does not necessitate that the examination shall be technical or vocational in its character, since even Technical Colleges and Evening Institutes have now recognised the advisability of catering for the cultural and social needs of their students, as well as their vocational requirements. There should be no compulsory "passing" group of subjects, though English and Arithmetic should be taken by all with not a high passing standard expected in them, and Arithmetic should not be a "failing" subject. The certificate should be granted for any four or more subjects and should show the percentage of marks awarded in each subject.

The natural supervising bodies for these examinations are the Regional Examining Unions that now conduct examinations for Evening Institutes. They are composed of teachers, administrators, and members of Local Education Authorities and are in close touch with all the modern movements of education. They would appoint special committees to draft syllabuses and supervise the examinations, but would retain in their own hands the final authority, in order to obtain and secure co-ordination and correlation with the general work of education in their respective districts.

Such an examination system has been working in the East Midlands during the last eleven years, and has been supervised by the East Midlands Education Union. Its period of working has been long enough to allow a judgment to be made on its work and on the value of that work. It has not limited unduly the liberty of the head teachers or cramped the work of the schools. It has certainly tended to lengthen the school life of the pupils, since many whose birthdays fell in the Christmas or Spring Terms have stayed on until the Summer Term to take the examinations which were held in that term. The Certificate is valued by employers and is, therefore, of direct value to the pupils who are fortunate enough to be able to take the examination and to gain it. It has

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encouraged others to continue their education, part-time, after leaving day-school, since the possession of the Certificate automatically entitles the holder to entry to higher classes. There has never been even a shadow of compulsion on the schools to submit their pupils to this examination, and yet the number of schools taking it increases every year in spite of the innate conservatism of teachers and their suspicion of anything new. The number of pupils taking the examination remains comparatively low, since it is only those whose fourteenth birthday falls in the summer terms who can sit for the examination without voluntarily and considerably extending their day-school life. Of these only those who have a satisfactory prospect of passing will enter for it. Whether the number taking this examination in the East Midlands will increase when the age for compulsory attendance at school is raised to fifteen years, time alone can show. Beneficial employment generally takes off the best and cleverest first, since they are usually the most wide awake and the most adaptable. The others have greater difficulty in obtaining posts, unless employment is plentiful. They may, therefore, have to stay on at school a little longer, and if so, education will have a chance of doing something to remove the effects of mental retardation due to heredity or environment. This lengthened school life may make it possible for some of them to sit for the Senior School Leaving Examination with better prospect of success, though such success would have been highly improbable at an earlier stage of their school life.

The conditions of this examination are set out below:

The Examination is held each year in June during school hours. The standard of the Examination is that which is required for Grade I of the Union's Examinations for students in Technical Schools, etc., and boys and girls who have passed the Examination will on joining Evening Schools and Classes be qualified for admittance to Senior Courses preparing for examinations in the subjects in which they have passed in the Central Schools' Examination.

## Leaving Examinations

The scheme of the Examination is as follows :

Each candidate may take six subjects, but in order to gain a Certificate he or she must pass in the two compulsory subjects and in not less than three optional subjects :

(a) COMPULSORY SUBJECTS.—General Arithmetic, English.

(b) FOUR OPTIONAL SUBJECTS.—To be selected from one of the following groups:

*General Group*.—Not more than two Art subjects, Elementary Science, English Literature, French, Geography, Handicraft (either woodwork or metal-work), History, Mathematics, Music. If Handicraft is taken in this group, then not more than one Art subject may be taken.

*Commercial Group*.—Book-keeping, Shorthand, Spanish, Theory and Practice of Commerce, Typewriting, and not more than two selected from the following: An Art subject (other than Object Drawing and Drawing of Plant Form), French, Geography, History, Mathematics, Music.

*Domestic Group*.—An Art Subject, Cookery, Housecraft, Laundry-work, Needlework, and not more than two selected from the following: Elementary Science, French, Geography, History, Music.

*Science (or Technical) Group*.—Engineering Drawing or Geometrical Drawing, Elementary Science, Handicraft (either Woodwork or Metal-work), Mathematics, and not more than one selected from the following: an Art subject, French, Geography, History, Music.

Successful pupils will be awarded a certificate entitled "The Central Schools' Certificate." On each of these certificates will be set out all the subjects in which the candidate has been successful.

### EVIDENCE OF WORK IN SCHOOL

Head Teachers are invited to submit lists classified in order of merit in each subject of all the candidates entered for this examination. These lists will be considered by the examiners in deciding the result of the examination. In English, French, and Spanish it is understood that the work done throughout the school course will include oral exercises.

### FEEs

The fee for the examination is twelve shillings per candidate.

Where there are less than ten entries in any one subject, the L.E.A. concerned shall have the option of paying a higher fee or of substituting another subject.

For the examination in Handicraft, in which it is necessary for the Union's Examiner to attend the Examination, L.E.A.s will be charged a fee of £1 10s.

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### ADDITIONAL EXAMINATIONS

If desired, the Union will make arrangements for examinations for pupils who are attending " Central " or other Elementary Schools providing " advanced instruction " and who have already passed the Central Schools' Examination. Such pupils may take not more than three further optional subjects in Grade I or Grade II of the Syllabuses of the Union.

The examiners are selected as far as possible from those who are engaged in, or are familiar with, the work of Central Schools.

## Social Amenities

IT seems to be the general opinion that the education of Senior School pupils ceases as soon as the schools close for the day and that it starts afresh in the morning when the schools reopen. That may be the case so far as "book-learning" is concerned and the training of manual skill, but the training of the character never stops. Presumably Local Education Authorities are aware of this fact, but if they are, their actions do not seem to be affected to any marked extent by their knowledge. They do little or nothing to shape out-of-school activities nor do they show themselves eager to provide facilities for the proper spending of their pupils' leisure time. They may give small grants to juvenile organisations in aid of their various activities and they may allow those organisations to use school rooms, if they want them, for their meetings on payment of the usual hire charges. They run a few play centres in order to keep the younger children off the streets and so to save motorists from some inconvenience, but that is practically all that they feel called upon to do, and they then sit back in their chairs and flatter themselves that they have done all that is advisable or necessary.

Everyone knows that pupils have a considerable amount of spare time on their hands, but Education Committees do not acknowledge that it is any concern of theirs how that time shall be spent. They leave that problem to the parents and wash their hands of the responsibility.

The fact remains that pupils have to occupy their spare hours in some way or other. They leave school at 4.30 p.m. and do not go to bed until 8.30 or 9 p.m., if then, and so have at their disposal in the interval from four to four and a half hours of activity.

What is to be done with those hours of leisure? Meals

do not take long, and boys will not and girls should not be engaged in household duties all that time. Parents may wish to go out in the evenings and prefer not to leave their children alone in the house. The older children would not stay in any case, since they have other fish to fry! In small houses, when both parents decide to spend their evenings at home, they do not always relish the company of their restless children—and it is not natural for children to be quiescent. The children have, therefore, to find occupation and entertainment elsewhere and may get into mischief in the process, especially in the dark winter evenings. Senior School pupils are not shackled, as are the less fortunate Secondary Schools' pupils, to long hours of homework in the evenings, and that is as it should be, since their home conditions are not conducive to quiet and successful private study, and in addition it is not right that children shall be given, after a day's schooling, an extra dose of mental exercise. A change is, in such a case, as good as, or better than, a rest. Whatever the Senior School pupils find to do with their leisure time, it should do nothing to undo the good effects of the day's lessons, but rather help to drive them home. Their leisure-time occupations should have some measure of spontaneity and should not be too obviously cut-and-dried for them, but at the same time those occupations should play their part in infiltrating into their receptive minds a sense of responsibility, the elements of Citizenship, and encourage the growth of the germ of the community spirit. This community spirit does not spring fully developed, like Athene from her father's head, as soon as the so-called years of discretion are reached. It is a plant of slow growth and very difficult to rear successfully. The seeds should be sown early and the young plant should not be unduly coddled, or it will "damp off" and the promise of youth will be utterly destroyed. The growth of the community spirit can be and no doubt generally is fostered in many ways in most Senior Schools. Its

nourishment should not, however, be confined to school hours exclusively, nor should it always be guarded and sheltered by the skilful and devoted teachers of the schools. It will have to grow later in more exposed positions and, to prepare for the trials it will have to meet, it should be allowed to develop more freely in the free hours of the evenings and preferably on or about the school premises. On the school premises in the evenings it will have a better chance of affecting some of the pupils who would never in the ordinary course think of joining an organisation of any kind when school days are over, the lost sheep of the future, the rebels to constituted authority, the misfits. If these apparent failures of the educational system happen by any chance to join an organised institution, their membership soon lapses, since they are frozen out by the more orderly members who do not approve their too-obvious lack of respect for established authority. Such problem children probably feel themselves kept down or pressed into a mould that does not fit them, while they are at school, and they react like a released spring so soon as they are free from school discipline, flinging themselves away to the relief of those with whom they have hitherto had to associate, but to their own ultimate disadvantage and to the disadvantage of the State, of which they are certainly not "obedient servants." The discipline of the modern school is very different from the "iron discipline" of the past, and all concerned with schools pride themselves on this self-evident fact. Adults do not, however, see things through the eyes of those much younger than themselves, and too often imagine that what suits their ideas is always also considered perfect by each and every child. The discipline that still rules in the schools does not irk unduly the great majority, but it does at times give rise to a sense of injustice in those who feel the weight of its displeasure. Before school days are over, there should be provided on the school premises in the evenings facilities for social gatherings, which will exercise on the

pupils who take part in them a semi-conscious training intermediate between that given in school hours and that which springs from the freedom of the leisure hours of later life. Something of the kind is offered to the comparatively few who join juvenile organisations which cater for pupils of Senior School age, but those organisations are looked upon by the pupils as something quite apart from school life, and certainly not integrally connected with it. Moreover, as already stated, problem children seldom join such organisations nor would they be welcomed by the other members if they did try to join. What is required and what would supply the need is a special extension of the Play Centre movement, suited to the requirements of those between the ages of eleven and fifteen years. Play Centres have hitherto been looked upon as pleasant methods of keeping children off the streets, and as the dangers of the streets are greatest in the case of very young children, these younger children have been catered for in the main, and the older pupils still of school age have not had anything done for them.

Play Centres for Senior School pupils held on school premises have functions to perform other than that of merely withdrawing them from the traffic dangers of the streets. They can do a great deal to prepare the children for their later greater freedom and also help to keep them attached to their old school, so that its beneficent influence may not be entirely withdrawn from them when they have finally passed out from it to the commercial and industrial world. There need be no fear that such a movement would in any way militate against the success of existing juvenile organisations, since there is no danger of competition or overlapping when there is so much ground uncovered. Less than thirty-five per cent. of juveniles between the ages of eleven and eighteen years are connected with any organisation at present, and unfortunately those outside include the majority of those who would profit most by membership

of a social organisation. Moreover, such Play Centres would act as useful recruiting grounds for the juvenile organisations with their excellent traditions and their attractive programmes, especially if Education Committees granted, as they ought to do, the use of their rooms, free of all charges, to juvenile organisations for some, if not for all, of their respective activities without interfering in any way with their management. The various organisations would then be working side by side in the same buildings for the common good.

These modified Play Centres should as far as is possible be self-governing institutions, and there should be free choice of occupations for their members. There must be some guidance, of course, but it should not be obtrusive, and the members should be encouraged to appoint their own committees and their own officers and to draw up their own programmes and their own rules of government. Naturally the emphasis in the programmes will be laid on recreation, but the line between recreation and education is a very fine one, and, moreover, recreation has a way of teaching its own lessons informally. It may not be true that the battle of Waterloo was won on the playing-fields of Eton, and the Duke of Wellington never said it was, but it is true that many battles over self are won during games on both playgrounds and playing-fields.

Experience shows that recreational institutions develop educational sides at the direct request of their members. Actually in Play Centres for younger children the educational sides are found to be the most popular, though hardly distinguishable in their content from the courses in a good and human Junior School. This fact may be taken as a testimonial to the interest aroused among the pupils by the more modern methods of instruction adopted in those schools. Pupils are almost led to love learning for learning's sake and continue their studies in the Play Centres, when they are really quite free to do as they like.

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To make the Senior Play Centre movement really successful, it is necessary to bring into play all available influences so as to get into the Play Centres and keep in them those pupils who might be inclined to stand out through an ingrained lack of social spirit, the Ishmaels of the nations. The aid of the Old Boys' and Old Girls' societies should be invoked. They meet regularly on the school premises and can be led to take a direct interest in the present members of their old school, and they can be induced to join in the evening recreations and help by their advice in the management and government of the Play Centre. The parents should also be asked to give a helping hand, and they will be all the more willing so to do if they also are induced to look on the school buildings as the centre of communal life for those who reside in the neighbourhood, both young and old. Schools have not as yet made full use of the influence of the parents. They have, in fact, felt too much inclined to follow the example of the "Public Schools" and warn parents of the fact that their children are legally in charge of the teachers during school hours and that the teachers feel themselves well able to manage without any aid from the parents of their pupils.

It is far better to have the parents on the side of the school than against it or even neutral or indifferent to it. Parents have charge of their children during the week and throughout the year for a much longer time than the teachers. Whether the parents exercise their duties wisely or not, they must, consciously or unconsciously, exercise a great deal of influence on their children, and their influence on their children will react on the school. The teacher's work is difficult enough when everything is favourable. It always resembles closely the Labours of Sisyphus, and ascent to wisdom is slow, whoever gives his aid, while descent is easy and, when it begins, very rapid. All, therefore, who can help in the ascent should be roped in. It is far better to recognise that parents exist and that their help can

become valuable, and then to proceed to discover how that help can be made most effective. Parents should be admitted to the Senior Schools in their daily sessions, so that they may see their children at work and at play, and they should be personally consulted when difficulties arise. They will be more ready to give their aid if they know from direct observation what the school is trying to do and what is the general object of the schemes of work. The Parents' Council has its uses, but it cannot replace direct contact with the parents in their individual capacities, since parents are naturally more interested in the progress and failings of their own children than in those of children in general. They will take more interest in the school and in what goes on there if they are allowed entry to the school not only when it is formally in session but also at other times when they can use the buildings for their own enjoyment. Parents may seem to be a bit of a nuisance at times, but there are few good things in this world that have no disadvantage attached to them.

## Communal Life

THE Senior School has until quite recently confined its efforts to its own school premises and to its playing-field, and it has not thought it necessary to follow its pupils to their homes to find out to what influences those pupils are there exposed, when they are not actually under the teachers' care and guidance. In the case of the majority this information, though advisable, is not absolutely essential, since the majority of the pupils react favourably to the school training and are satisfactory in conduct and behaviour both at school and at home. There is, however, always a small percentage, the school's failures, who require some special attention and treatment if they are ever to become upright and useful members of the community in which they live. Apparently the numbers of these misfits are tending to increase as time goes on. At any rate, statistics show that the number of juvenile delinquents becomes greater each year, and this is generally taken as a sign that there are now influences at work which induce more younger people to offend against social and moral codes than did so before. It is possible that some of the increase is due to improvement in the science of detection and an increased readiness on the part of property owners to invoke the aid of the police. It is certain that the shops have increased the temptation for pilfering by the open display of their wares.

Whether the increase in juvenile delinquency is real or only apparent, its causes and its prevention require the serious attention of all educationists and of all those interested in the welfare of children. There is confessedly no one cause for juvenile delinquency, and each case requires, and at times receives, careful examination before it is dealt with by the magistrates, if indeed it gets so far. The punishment is often dependent on the report received from an expert who has gone into the case. Reports

made after the offences have been committed are of value in deciding the future treatments for the particular offenders, and no doubt the careful examination of a number of such reports gives Local Education Authorities guidance in the methods that should be taken to avoid the repetition of similar offences and the multiplication of offenders. The prevention of offences is far more important than the curés after the offences have been committed. It seems quite clear that punishment, whether corporal or otherwise, does not act as a deterrent so far as other offenders are concerned who have not been punished. Something other than the fear of punishment must be adopted if the increase in juvenile delinquency is to be checked. The Child Guidance Clinics are now giving help in difficult cases, but these are too few in number to be expected to make any great impression. Visits to the homes of the children by teachers in a voluntary capacity and by officials of Local Authorities in the course of their duties give very valuable information in many cases. Very often reports on maladjusted children emphasise the existence of unsatisfactory home conditions, lack of home discipline, slackness of the parents' moral code, unsatisfactory housing conditions which force the children on to the streets and which also tempt the parents to seek their recreation in circumstances not conducive to the strengthening of their characters. Juvenile organisations and Play Centres can do something for the children, but unfortunately they seldom get hold of the putative juvenile offender either when he is at school or after he has gone to work. Only a very small percentage of juvenile offenders are found to have been members of juvenile organisations, and this seems to point to the necessity either of increasing the numbers of the organisations or of so altering their constitutions and programmes as to make them more attractive to those who so much need their aid but never seek it.

Recent experience on Municipal Housing Estates has shown that an institution which caters for all ages in the

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same building does succeed in enrolling and keeping on its rolls children and juveniles who had not hitherto displayed any inclination to become members of existing organisations. There are advantages in catering for the family as a whole in a self-governing institution. There the parents seem to recognise more clearly that they have responsibility for the leisure hours of their respective children and see to it that their children follow their own example and join in the activities of the section which has been established for their benefit. Clubs and societies which cater for the young exclusively do not think it advisable or necessary to enlist the aid or the interest of the parents of their members in their activities. Possibly their leaders have their hands quite full enough in supervising the conduct of their organisation and in taking an active part in its varied activities without trying to get parents to recognise their own responsibilities. This concentration on the one task may be good for the organisation and make its running easier and less complicated, but it is very questionable whether it is good for the parents. Parents in all classes of society are too ready to shelve their responsibility. Those who are rich enough send their children to boarding schools, while others who have to educate their children in day schools ask for homework in the evenings and agitate for facilities for evening entertainments for their children and complain that the holidays are too long. Where children get completely out of hand, it is generally found that their parents have ignored their responsibilities and have let their children go their own ways, which have, unfortunately, not proved to be the right ways. If parents are led to imagine that they are no more responsible for the spending of their children's leisure time than they are for their daytime education, they will not be inclined to take any active steps to see that that leisure time is spent in the way it should properly be spent, and, incidentally, the more is done by others for the children without reference to their parents, the more prevalent

will become the idea in those children's minds that the counsels of their parents need not receive much attention.

Municipal Housing Estates are extremely useful for experiments both in social and in educational work. There are no vested interests there and no claims staked, but there is undoubtedly a wide field of work for the benefit of the residents of all ages. It is of little advantage to tackle the problem of the child and the juvenile and leave that of the adult untouched. Unrest on the part of the adult reacts on the child and the juvenile and creates difficulties in school and out. So far as the spending of the leisure time is concerned, the problem of the adult is the more pressing. Their conditions from the social point of view are very different from those under which they lived before their transfer to the housing estate. They have had suddenly to exchange the bustle of the town for the quiet of the housing estate without any previous training to make the change congenial. Their home conditions are infinitely superior to those they had to put up with before, and they have a garden, too, which might become a source of profit and enjoyment. But people want more than houses and gardens for complete happiness, even when their immediate surroundings are cheerful and healthy. Peace and quietness are not considered by everyone to be the height of bliss. What people, young and old, want most of all is companionship. The housing estate tenants had it in their old quarters. Their friends were then close at hand, too close for health, but not for conversation. In fact they could take an active part in animated discussions with the whole court or street without leaving their own doorsteps. This is quite impossible where there are only sixteen or eighteen houses to the acre. It is difficult to speak to more than one neighbour at a time over the garden fence. Moreover, the neighbours on both sides may be complete strangers and wish to remain so. Where are the residents to meet one another now? Not in their

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own houses, since these may be big enough as residences, but their rooms are too small for communal meetings. Not in their places of employment, since those are in the distant town and probably far apart. Not in the trains, trams, and buses, which take the workers to and fro, since the Englishman is not at his best in a Public Service vehicle. If he is sober, he does not wish to speak to anyone, and if he is not sober, no one wants to speak to him. Not in his old haunts in the town, since those are too far away for an evening's walk and the cost of transport is too high. There is no Workman's Fare available for social visits in the evenings.

The wife is the worst off from the social point of view, since for her there is no daily journey to and from the town, no companionship of the workshop. Even her shopping excursions are not so interesting as they used to be, when she searched for bargains in the open market. The streets contain just enough traffic to make them dangerous as playgrounds for her children, but they cannot compare in interest with the streets of the town she has left. At night it is so quiet that she cannot get her children to sleep, since they miss the hum of the traffic and the echo of the nearby voices, which before had lulled them to sleep. The houses and their surroundings are quiet, even deadly dull in the daytime, when the workers are off to town and the children are at school. What is the housewife to do with her spare hours in the daytime and what shall she suggest for the other members of her family to interest them and to keep them out of mischief during their leisure hours? In summer, when the weather is fine, it is fairly easy. There is the garden to be attended to, walks to be taken together. The parks and museums, the recreation grounds and swimming baths are not too far off for occasional visits. But in winter, when the sun has set, gardening is impossible, the museums and recreation grounds are closed, the swimming baths are no longer attractive. The Public Library in the distant town offers its books to the returning

worker, but not everyone is a reader and few wish to spend all their evenings with books. Visits to cinemas and public-houses cost money which can ill be spared. Man is a gregarious animal in all his stages and in both his sexes. He must meet his kind. Where can the people meet? Facilities for indoor meetings do not exist on most Municipal Housing Estates. A few small communal halls have been erected by one or two of the more progressive authorities, but these halls are much too small, and, moreover, they cater for men and youths only, and those, too, of the superior kind.

Local Authorities have power to erect and maintain communal halls, and in fact they have been encouraged so to do by an Act passed in 1936. But these are days of economy, and much outlay for this purpose is not to be hoped for at present, in spite of the Government's offer to pay fifty per cent. of the cost. Also there are still too many people who maintain that Local Authorities have done quite enough, if not too much, for their tenants when they have provided them with a house at an uneconomic rent and given them a garden as well. Some other means must be sought which will answer the purpose without involving much extra expenditure from the rates and taxes.

Dr. Paton suggested the solution as long ago as 1879. He pointed out then how absurd it was

to leave the public school buildings, built at the people's expense, the people's own property, standing just where recreation centres are most needed, standing for the most part dark and untenanted in the evenings, with their fine assembly halls, their plenteous classrooms, and all the accommodation needed for a palace of delight. Why should not they be full of light and jubilant with song? Why should not the life of the people find its centre there?

Dr. Paton had not, in 1879, the housing estates in mind, but merely the dull and depressing rows of closely packed dwellings, the ordinary accommodation for the artisan. They are called "slums" now. Palaces of delight are still required in the older parts of our towns,

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but they are not so easy to supply there as in the new Municipal Housing Estates.

In 1924, as Director of Education for the City of Nottingham, I suggested to my Committee that they should plan and furnish their new schools for the dual purpose of educating children in the daytime and of entertaining and instructing adults and adolescents in the evenings and in other out-of-school hours, thus carrying out Dr. Paton's idea, though I did not know until twelve years later that he had advanced it.

The experiment has been successful. The social uplift of the people has to be seen to be believed. The children no longer bear the stamp of the congested areas from which they came. They are as clean and as carefully dressed as are those who have been used to satisfactory housing conditions all their lives. They respect their own school buildings and the surrounding gardens and shrubberies and they carry this respect to their own homes. For instance, a canvasser for a Municipal Election was told by a woman whose vote she was soliciting: "I don't like these new-fangled schools. My children want the windows wide open and the curtains drawn back like they have at school, and we don't want to let the sunlight into our rooms. What about the carpet? And my girl wants a table-cloth on the table for meals. She has one at school in the cookery-room, so nothing will do for her but that we shall have one here. We've always made do with a newspaper before, or nothing."

Juvenile delinquency has practically disappeared from the housing estates which have been provided with these dual-purpose schools, though it still shows a tendency to increase in the older parts of the City, where the conditions remain very similar to those from which the tenants on the housing estates have been delivered.

Unselfish social service is helped along. At one of the Housing Estate Schools the women meet in the afternoons for informal lessons in domestic subjects, interspersed with tea and talk. The first thing they decided to do was to

make overalls for the babies in the Nursery Classes of the school. Not for their own babies necessarily, but for all the babies who were admitted to the classes. They worked in teams, volubly and manually, cutting out and sewing and embroidering the monograms. When this was finished—and it took many afternoons—they turned to the requirements of their own families, of which knickers seemed to be the most pressing. That will not surprise those who have seen children on the “slides” provided by beneficent Local Authorities, with one eye on the happiness of the children and the other on the prosperity of the underclothing trade. Cookery lessons excite interest and demonstrate the not universally appreciated fact that fresh food is as good as tinned and much cheaper, a fact specially important to those with too-limited means. The women prefer to reserve their free afternoons for informal study of household problems, but they take their full share in the recreational gatherings which are held on each Friday and Saturday evening in the large school halls. They do not stick to the card-tables but join in the community singing and in the dances, and if they are not quite up to date in the modern dances, daughters and granddaughters take a hand in their instruction. The women have not yet seriously taken up the Drama, though they flock in their hundreds to see the plays acted by their children or by the Teachers’ Dramatic Society, and there are signs that they will not long be satisfied with being mere watchers and listeners. They will soon have their own Dramatic Society and their own Orchestras. The parents have their quiet evenings at home, when they have sent off their younger children to the Play Centres and their older boy or girl to the Evening Institute, or to one of the organisations of a more or less social and recreational nature which has its meetings in the school buildings. Physical Culture plays its part in the social life of the estate. In the gymnasia Health and Beauty classes attract the girls and women, Physical Jerks the men and youths. The play-

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grounds are used for tennis and netball, the halls for badminton. The Boy Scouts and the Girl Guides use halls, classrooms, and playgrounds for their various activities entirely free of all charges, which privilege is also granted to the whole of the Social Centre. Full use is made of the School Canteen when refreshments are required. On Sundays the children are sent to the Sunday Schools of one or other of the three denominations which hold them on the school premises, while the parents go to the religious services which take place there later in the mornings. The men can attend interesting debates, which are also held on Sundays, but the women seldom attend these, because, perhaps, they think that the men should have this one opportunity for complete freedom of speech.

The schools are so large and cover so great an area—they are half a mile round and each accommodates in six departments three thousand children—that seven or eight different organisations can and do hold their meetings in one of them at one and the same time without interfering with one another. The whole family looks to the school for education and entertainment, and it is not necessary for the young to go one way and the older another for their respective evening entertainments. They enter the schools together and separate when they get there, each going to his or her own organisation.

Schools planned as these are, with large halls, equipped with stages and retiring rooms, with gymnasias and shower-baths, rooms for Woodwork and Metal-work, for Cookery, Arts and Crafts, Dressmaking, and Applied Science, give to the people all that Dr. Paton wished for, and more. Their "plenteous classrooms and fine assembly halls" shine like beacons in the midst of the estates, leading the people to happiness and good companionship. Could not this system be extended to the older parts of towns and cities? People can be lonely in a crowd, but even if the people in the older parts of the towns do not actually suffer from loneliness, they certainly do feel the need for

communal meeting-places. These are being supplied for the unemployed, and the need for them is undoubtedly great in their unoccupied daytime, but in the evenings both unemployed and employed want somewhere to go to where they can meet their kind and spend their time in happy companionship. They do not want everything cut-and-dried for them, since they enjoy it more when they have thrown upon them responsibility for the arrangements and for the management of their institutions, and they will learn self-government from its practice. The problem may differ in some respects from that of the Municipal Housing Estates, but in the long run the requirements of the individual are much the same whether he or she is transferred to a Municipal Housing Estate or left in the slums of a city. The Municipal Housing Estates are now in the public eye mainly because they are new and are the property of the rate-payers and electors. The tenants on the Municipal Housing Estates were residents in condemned areas, and they have gained much from their transfer, but it is not just or right that those who have not been fortunate enough to be transferred to better conditions should receive no care and no attention to their social needs unless they have added to their other ills the great misfortune of unemployment. If nothing is to be done for the employed adults, something must be done for the children and for the juveniles—the hopes of the future. The annual increase in the number of juvenile delinquents in the congested areas should be sufficient to force the issue and compel experiments to be initiated in the older parts of towns and cities similar to those which are being carried through so successfully in the Nottingham City Housing Estates.

# Conditions Governing Applications for Exemption from School Attendance under the Provisions of the Education Act, 1936

## (1) PROBABLE DURATION OF EMPLOYMENT

THAT where the general conditions which obtain in respect of the proposed service of the child would not afford the child employment up to the age at which he ceases to be otherwise under obligation to attend school, the probable duration of the employment will be regarded as unsatisfactory.

## (2) THE NATURE OF THE EMPLOYMENT

That the following list of occupations will be considered unsuitable for children between the ages of fourteen and fifteen years:

(a) As a lather boy or in similar occupation in a barber's or hairdresser's shop.

(b) In the kitchen of any hotel, cookshop, fried-fish shop, bakehouse, eating house, or refreshment room.

(c) As a marker or attendant in any billiard or bagatelle saloon or other place licensed for games, or in any registered club.

(d) In or in connection with the sale of intoxicating liquors, except in places where such liquors are sold exclusively in sealed bottles.

(e) In selling programmes or refreshments or other articles or in selling or taking checks, or in shifting scenery in any theatre, music hall, picture theatre, or other place of public entertainment.

(f) In collecting or sorting rags or refuse.

## *Conditions Governing Applications for Exemption from School*

(g) As an attendant or assistant in any premises or fair ground used for the purpose of public amusement by means of automatic machines, mutoscopes, shooting ranges, games of chance or skill, or similar devices.

(h) In any slaughterhouse or offal-dressing premises.

(i) In or in connection with any racing track or course, or other place where such-like sport is carried on, or as an assistant in any business conducted therein; on or in connection with any establishment engaged in lotteries, betting, or gambling.

(j) In the manufacture of flour or in the manufacture of cement, or in a grinding shop.

(k) In any underground workings.

(l) In the hawking of firewood, flowers, fruit, vegetables, or other similar articles on the public highway.

### (3) WAGES TO BE PAID

That except in cases governed by national or local agreements (Wages Boards, etc.), the questions will be dealt with by the Local Education Authorities in the light of their own knowledge and such conditions as properly obtain in their respective areas, including the amount and nature of the training which the child will be given in the course of his employment and the prospects which that employment offers.

### (4) HOURS OF WORK

That the maximum number of weekly hours of employment be limited to thirty-six (exclusive of intervals for meals and rest) and not more than seven hours on any day, and that an extension to forty hours a week be allowed, provided that not less than four hours are given for attendance at classes and that no child be allowed to work before 7 a.m. or after 5.30 p.m., except that

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special consideration be given to children employed in agriculture.

That no overtime be allowed for children under fifteen years of age.

That where it is agreed between the parties that a child should attend Evening Classes, it be one of the conditions of the issue of employment certificate that the employer shall be under obligation to release the child from labour in such time as to enable the child to reach those classes punctually and in good condition.

That in granting exemption it shall be required that on one day a week the child shall not be employed after the midday break, and in any case not beyond 1 p.m.

That where holidays with pay are granted, it shall be regarded by the Authority as a feature conducing to beneficial employment.

#### (5) OPPORTUNITIES FOR FURTHER EDUCATION

That in determining whether or not an employment is beneficial in respect of the opportunities to be afforded to the child for further education, the following conditions shall be regarded as conducive to the beneficial character of the employment:

(a) Where the employer is prepared to make attendance at classes during the normal working hours for a minimum of four hours weekly a condition of employment and to afford facilities for such attendance, or

(b) Where the employer is prepared to make it a condition of employment that the child shall attend Evening Classes and is prepared to allow some free compensating time during the day for recreation.

That the time available for recreation under Section 2 (4) (c) of the Education Act, 1936, shall in all cases be regarded as additional to the period selected for further education.

That in all cases a reasonable period be allowed

## *Conditions Governing Applications for Exemption from School*

between work, school, and home, as well as for the necessary meals, washing, and so forth.

### (6) TIME AVAILABLE FOR RECREATION

That any concession by the employer of time allowed for recreation during the normal working hours be regarded as conducing to beneficial employment.

That Sunday be regarded as a whole holiday, and that no child be exempted to be employed on that day.

### (7) PROSPECTIVE BENEFIT TO CHILD

That where possible an endeavour be made to secure that the employment is of a progressive nature, or if not progressive that the employer is likely to give some form of training or experience which will in itself be of value in enabling the child to enter progressive employment subsequently.

That intermittent or short-term employment be not regarded as beneficial.

That the existence of a Welfare Scheme in connection with any proposed employment be regarded as a feature conducive to beneficial employment.

### (8) CONDITIONS FOR WITHDRAWAL TO ASSIST AT HOME

While it is recognised that the circumstances existing in the home of the child will have to be considered in the case of each application, they should be of a nature not usually obtaining, and exemptions should be granted only where there is a combination of unfavourable circumstances, such as the following:

- (a) Where the mother is dead or incapacitated.
- (b) Where no relative, friend, or neighbour is available to give assistance.
- (c) Where young children have to be cared for.
- (d) Where the family income is such that a house-keeper cannot be engaged.

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In all such cases of withdrawal, the Authority shall do all in its power to ensure that reasonable facilities are secured for recreation and for further education.

#### (9) PROVISION FOR CHILDREN WHOSE EMPLOYMENT CEASES BEFORE FIFTEEN

That when a child ceases to be beneficially employed before he reaches the age of fifteen, and is therefore liable again to the laws of school attendance, he may be required to return to a Public Elementary School or to attend a Juvenile Instruction Centre or Evening Institute.

That where it is undesirable or difficult for the child to return to a Public Elementary School, the Education Authority will endeavour to provide suitable alternative Day or Evening Classes for the child to attend.

#### (10) VOCATIONAL GUIDANCE

That no advice be given which has for its object the encouragement of applications for exemption from attendance at school.

That individual advice be not given to a child until after he has attained the age of fourteen, unless it is sought by the parent or pupil at a Juvenile Employment Office.

#### (11) SCHOOL TERMS

That the number of school terms in each year be four, such terms to end at the beginning of Easter, Midsummer, Autumn, and Christmas holidays, and that exemptions for beneficial employment be granted to take effect only at the end of a term.

